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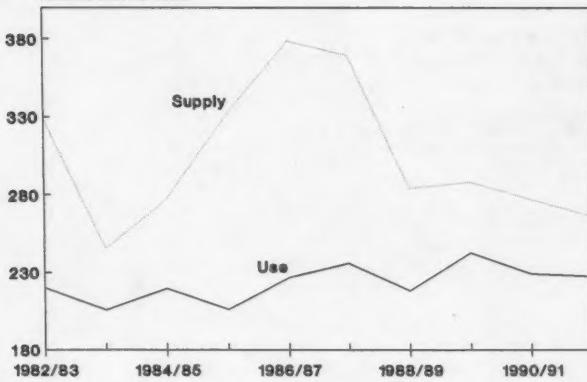
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Feed

Situation and Outlook Report

Feed Grains: Supply and Use

Million metric tons



Contents

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Summary

Adverse Weather Cuts U.S. Feed Grain Output

U.S. 1991 feed grain production is forecast at 216.8 million metric tons, down 6 percent from last year. Area indicated for harvest for grain is up almost 3 percent to 91.9 million acres, but yield is forecast to decline 8 percent to 2.36 tons per acre. The forecast yield is nevertheless almost 27 percent above 1988's drought-reduced yield. Corn will account for most of the drop in production, followed by oats. Sorghum production is expected to be little changed from last year as more area will largely offset lower yields. The barley crop will be up because of larger acreage.

The U.S. feed grain supply for 1991/92 is forecast down 4 percent to 266.4 million tons, as an estimated 6-percent increase in carryin stocks only partly offsets this year's lower production. The supply will be lowest since 1983/84's drought-reduced 245.5 million tons. Although use is projected down 1 percent to 227.5 million tons, it will exceed production by an estimated 10.7 million tons. Thus, 1991/92 ending stocks are projected to decline more than 9 million tons from a year earlier to 38.9 million, the lowest since 1976/77.

World coarse grain production in 1990/91 is projected to decline 3.5 percent to 799 million tons, reflecting lower U.S. and foreign crops. The smaller production will more than offset a forecast increase in carryin stocks, reducing the world supply 2.5 percent from a year earlier. While consumption also is projected to drop, it is expected to exceed production, cutting ending stocks by 10 percent. The world ending stocks-to-use ratio is projected to fall to 14.4 percent, the lowest in nearly 20 years.

World trade in coarse grains is projected to decline more than 2 percent to 83 million tons in 1991/92, the second consecutive drop. While corn and sorghum trade are projected down, barley trade is projected to be record high, primarily due to large supplies in Canada and the EC and sharply higher Soviet imports. U.S. exports are projected at 48.7 mil-

lion tons, down from 51.7 million forecast for 1990/91, and the lowest since 1986/87. The U.S. share of the world coarse grain market is projected at 59 percent, compared with 61 in 1990/91, and the lowest since 1986/87.

The U.S. corn supply for 1991/92 is forecast at 8.95 billion bushels, 4 percent below a year earlier. While beginning stocks are expected to be up almost 200 million bushels, this year's weather-reduced crop, forecast at 7.4 billion bushels, is 500 million bushels below last year. Use is projected at 7.7 billion bushels, nearly the same as in 1990/91. Food, seed, and industrial use (FSI) and feed and residual disappearance are projected up 25 million bushels each, but exports are projected to decline by 75 million. With use exceeding production, ending stocks are forecast to decline to a little over 1.2 billion bushels, the lowest since 1983/84. Corn prices are projected to range from \$2.30 to \$2.70 a bushel, compared with 1990/91's estimated \$2.30.

U.S. sorghum production in 1991 is forecast at 565 million bushels, slightly under last year's output as an expected 7-percent increase in harvested area will almost offset an 8-percent decrease in forecast yield. With beginning stocks estimated at just 157 million bushels, the 1991/92 supply is forecast at 722 million bushels, the lowest since 1974/75. Domestic use is expected to remain about 415 million bushels, but exports are projected down 30 million bushels to 190 million. Although use will decline, it will still exceed production, reducing 1991/92 ending stocks to 117 million bushels. Sorghum prices are expected to range from \$2.15 to \$2.55 per bushel, compared with an estimated \$2.10 in 1990/91.

With an expected increase in harvested area and yields about the same as last year, 1991 barley production is forecast to rise 51 million bushels from a year earlier to 470 million. This will more than offset the decline in beginning stocks, raising the 1991/92 supply 4 per-

cent to 621 million bushels. Use, at 475 million bushels, is projected up 3.5 percent, leaving ending stocks slightly above a year earlier. Corn prices will pull feed barley prices up and the differential between feed barley and malting barley prices will remain small.

Oats production is forecast to decline again in 1991 as harvested area is likely to be record low and yields are forecast 13 percent below last year. Despite larger carryin stocks, the 1991/92 supply is forecast down 15 percent to 496 million bushels. Use, at 386 million bushels, is projected down 7 percent and ending stocks are projected to decline 36 percent to 110 million bushels. Prices are projected to average between \$1.10 and \$1.40 per bushel.

Hay production in 1991/92 is forecast up 7 percent to a record 156.8 million short tons, as harvested area and yields rise from a year ago. May 1 carryin stocks equaled a year earlier, bringing supply to 183.9 million tons, up 6 percent. Although the number of roughage-consuming animal units (RCAU's) is forecast to expand significantly during the year, hay supplies are large enough to permit expansion in consumption per RCAU.

With total disappearance of grain and soybeans projected down from 1990/91, demand for rail and barge transportation in 1991/92 is expected to decline from a year earlier. Reduced corn exports are likely to cause barge shipments to decline more than rail shipments. Falling water levels on the Mississippi River likely will hold barge rates at current levels despite reduced exports.

Feed Grain Supply and Use

Feed Grain Supply Forecast Down 4 Percent for 1991/92

Adverse weather has reduced potential production 19 million metric tons from 1990/91's 230.3 million.

The 1991/92 feed grain supply is projected at 266.4 million tons, down 4 percent from a year earlier. Beginning stocks, estimated at 48.3 million tons, are up 2.8 million tons, but this year's crop, forecast at 216.8 million tons, is 13.5 million tons below the 1990 harvest. Imports are expected to be little changed.

Area Harvested Up, Yields Down Sharply

This year's reduced feed grain production is expected to be harvested from 91.9 million acres, 2.4 million more than in 1990. This year's yield is forecast at 2.36 tons per acre, 8 percent below last year's 2.57. Forecast yields and production of corn, sorghum, and oats are down from 1990, and although the barley yield is down slightly, production is forecast up 12 percent to 470 million bushels, reflecting an increase in area harvested.

This year's adverse weather has had the most pronounced impact on corn yields in an area stretching from Illinois through the eastern Corn Belt to the East Coast. While the forecast reduction in corn yields of 22, 31, and 23 bushels per acre for Illinois, Indiana, and Ohio, respectively, is having the biggest impact on corn production, even larger year-to-year yield reductions are forecast for Pennsylvania and Maryland.

On the other hand, Minnesota's forecast corn yield is up 4 bushels per acre from 1990 to a record. In addition, prospects for the 1991 corn crop in the Southwest and Southeast are generally greatly improved over last year.

While prospects for sorghum yields are also improved over last year for much of the Southwest and Southeast, yields are forecast down 21 and 11 bushels per acre for Nebraska and Kansas, respectively. Kansas is expected to be the second largest sorghum producing State and Nebraska the third largest. For oats, warm moist conditions have caused substantial disease damage and loss of potential yields for several important oat producing States.

Even with the problems in the Corn Belt this year, corn will comprise about 85 percent of the total feed grain supply, the same as 1990/91, but 3 percentage points above the 1985/86-1989/90 average of 82.1 percent.

Feed Grain Use Forecast To Drop 4 Percent

Feed grain use for 1991/92 is projected at 227.5 million tons, 1 percent less than forecast disappearance for 1990/91. Domestic use is expected to total about 179 million tons, with FSI use up slightly at 40.3 million tons and feed and residual disappearance little changed at 138.6 million tons. Exports are projected to decline 5 percent to 48.6 million tons.

The forecast use would leave 1991/92 ending stocks of 38.9 million tons, down 19 percent from a year earlier and the lowest since 1976/77 when ending stocks totaled 37 million tons. The ending stocks-to-use ratio would be 17.1, compared with 21.1 for 1990/91 and 20.4 for 1976/77.

The tight stock situation is expected to have a greater impact on prices than use. The 1-percent reduction in use is expected to be accompanied by feed grain prices ranging from 5 to 15 percent higher than a year earlier. Feeding margins in the livestock industry are currently modest to low and rising feed grain prices will further erode profit margins. Because feed costs are a major variable cost in livestock and poultry feeding, some adjustments likely would be made in feeding practices. Cattle and hog feeders have been feeding to heavier finished weights. The rise in feed costs could at least partly be offset by feeding to lighter weights.

Also, wheat prices will be competitive over a large area with corn and sorghum, at least through the summer, allowing feeders to substitute wheat to compensate for rising corn and sorghum prices. A large hay crop of generally good quality is being harvested this year and hay prices for May-July averaged about 17 percent below a year earlier. Feeders will be able to substitute some forage for concentrates to help hold the line on feed costs for ruminants.

Corn Production Sharply Reduced by Low Rainfall in July

Below-normal rainfall over much of the Corn Belt has reduced potential yields, lowering 1991 corn production to a forecast 7.4 billion bushels, 6.5 percent below 1990.

On August 12, USDA released its first survey-based forecast of the 1991 corn crop. Production of 7.4 billion bushels is forecast to be harvested from 68.8 million acres for a yield of 107.8 bushels per acre. On June 1, farmers indicated intentions to harvest 68.8 million acres. Thus, farmers apparently planted all the acreage they reported in the June *Acreage* report, and crop conditions by early August had not resulted in any above-normal abandonment.

Forecast yields will vary widely across the 17 major corn growing States. Yields are equal to or better than last year in Colorado, Georgia, Minnesota, North Carolina, and Texas. In most of the remaining States, yields are down 2 to 10 percent. However, in Illinois, Indiana, Ohio, and Pennsylvania, yields are below last year's by 17, 24, 19, and 35 percent, respectively. Rainfall was widespread throughout the Corn Belt during the first week of August. However, additional rain will be needed.

Larger Beginning Stocks Help Cushion Crop Loss

The corn supply for 1991/92 is projected at 8.95 billion bushels, 4 percent, or 330 million bushels, below a year earlier. Beginning stocks are forecast at slightly over 1.5 billion bushels, about 180 million larger than a year earlier. The projected harvest of 7.4 billion and about 2 million bushels of imports round out the supply for 1991/92.

Corn use during 1991/92 is projected a little over 7.7 billion bushels. FSI use is expected to increase 25 million bushels to 1.35 billion with sweeteners, starch, and ethanol contributing about equally to the increase. Alcoholic beverage production and alkaline products are expected to use less corn than in 1990/91. Exports are projected to decline about 75 million bushels from year-earlier shipments. Mexico's corn crop appears to be larger than assessed earlier, and Korea not only is expected to substitute more wheat for corn in its feeding

programs but also take more corn from China. However, a major change in the market is less aggressive buying by the USSR than in past years (see World Coarse Grain Outlook section).

Feed and residual use is expected to increase 25 million bushels from 4.7 billion in 1990/91. The number of grain consuming animal units (GCAU's) is projected to rise 1.3 percent in 1991/92. Increased hog, broiler, and turkey production underlies the gain in GCAU's. Numbers of cows milked and cattle on feed are expected to be down. Feeding profit margins have been positive but not large, and a rise in feed prices will squeeze these margins, particularly with hog and fed cattle prices expected to average lower this fall and winter.

Stocks To Drop and Prices Strengthen

Disappearance of 7.7 billion bushels of corn would leave 1991/92 ending stocks a little over 1.2 billion bushels and an

ending stocks-to-use ratio of 15.9. Moreover, the bullish outlook for grain prices likely will be rekindled. Farmers probably will be more inclined to hold stocks than during the late spring of 1990 when corn prices sagged under pressure of weak export demand and conditions were favorable for a large 1991 corn crop. Based on August prospects for the corn crop and projected ending stocks of 1.2 billion bushels, the season average price is projected to range from \$2.30 to \$2.70 a bushel.

Use Lags in Second Half of 1990/91

On-farm and off-farm stocks of corn on June 1 were nearly 3 billion bushels, resulting in March-May use of nearly 1.8 billion bushels, 172 million less than a year earlier. FSI use is estimated at 363.4 million bushels, fractionally below March-May 1990. Processing use rose 2 percent and seed use, reflecting larger and earlier plantings this year, was up 5 percent.

Table 1--Corn supply, disappearance, and stocks, March-May

Item	1989/90	1990/91
	Million bushels	
Supply:		
Beginning stocks, March 1:	4,812.4	4,789.0
CCC	537.2	195.6
FOR	417.0	358.1
Loan	783.9	917.4
Free	3,074.3	3,317.9
Imports	0.6	1.3
Total	4,813.0	4,790.3
Disappearance:		
Food, seed, & industrial	364.1	363.4
Exports	601.3	453.7
Feed and residual	1,004.4	981.2
Total	1,969.8	1,798.3
Ending stocks June 1:		
CCC	299.3	435.9
FOR	392.5	29.0
Loan	444.1	638.9
Free	1,707.3	1,888.1
Total	2,843.2	2,991.9

Totals may not add because of rounding.

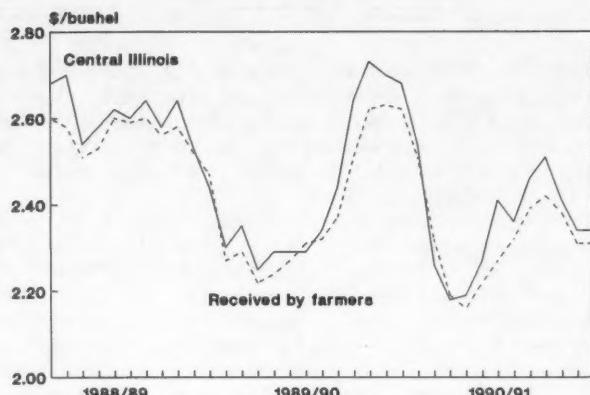
Exports for March-May totaled 454 million bushels, 147 million below a year earlier. This brought exports for September-May to 1.3 billion bushels, about 559 million less than during the same period in 1989/90. Based on *U.S. Export Sales*, the USSR accounted for about 53 percent of the decrease, Korea for about 19 percent, and Mexico for 16 percent.

Feed and residual disappearance for March-May amounted to 981 million bushels, 3 percent below a year earlier. Early pasture growth, and hay prices that averaged nearly 10 percent below March-May 1990, suggest that forage may have replaced some concentrate use in feeding ruminants, and more wheat was fed this year than a year earlier.

1990/91 Ending Stocks To Exceed 1.5 Billion Bushels

Supply for the June-August quarter is nearly 3.0 billion bushels (June 1 stocks of 2991.9 million bushels plus imports of .3 million bushels). Use for the quarter is forecast to total 1.46 billion bushels, 2.5 percent less than in June-August last year. FSI use is expected to almost 350 million bushels, up 2 per-

Figure 1
Monthly Average Corn Prices



cent; exports are forecast at 418 million bushels, a drop of 17 percent; but feed and residual disappearance is projected at 695 million bushels, 8 percent above a year earlier.

Forecast use leaves 1990/91 ending stocks of 1.53 billion bushels, 14 per-

cent above 1989/90. Use for the June-August quarter brings total use for 1990/91 to 7.75 billion bushels with an ending stocks-to-use ratio of 19.7. The season average price received by farmers is estimated at \$2.30 per bushel, 6 cents below a year earlier.

Sorghum Use Limited by Smaller Supplies

Smaller 1991/92 carryin stocks and a smaller crop will combine to reduce 1991/92 sorghum supplies by 9 percent.

A lower acreage reduction program (ARP) percentage for the 1991/92 crop helped boost planted sorghum acreage nearly 5 percent from last year. In addition, relatively favorable weather at the beginning of the crop year brightened prospects for a recovery in grain sorghum production. However, hot and dry weather during late June and throughout July have eroded production prospects, particularly in the Central Plains States.

The condition of the sorghum crop in Kansas, Missouri and Nebraska has declined continuously since the end of

June through early August (figure 2). The impact of the heat and lack of rainfall was revealed in the August production forecast. The three States account for over 50 percent of the estimated harvested sorghum area for 1991. Texas, which represents just over 30 percent of area harvested, is the only State reporting reasonably good crop conditions as of August 4. All other States reporting sorghum crop conditions show a deteriorated crop.

Based on crop conditions around August 1, 1991, USDA forecasts grain sorghum production of 565 million

bushels, just short of last year's production. The U.S. average yield, based on harvested acreage of 9.7 million acres, is estimated at 57.9 bushels per acre, down 8 percent from 1990. The sharpest yield declines are projected for Nebraska, down 27 percent; South Dakota, down 24 percent; Kansas, down 17 percent; and Missouri and Arkansas, each down 9 percent, from last year. In contrast, the Texas yield is projected 17 percent above last year.

Sorghum Supplies Tighten Further

As the 1990/91 crop year comes to a close, grain sorghum stocks have continued to tighten. Supplies for the 1990/91 marketing year totaled 791 million bushels, down 25 percent from the previous year. Sorghum use during September 1990-May 1991 was down just 21 percent, with domestic use, at 377 million bushels, down 19 percent from a year ago, while exports of 195 million bushels were off 23 percent. For all of 1990/91, total use is projected to reach 634 million bushels, 24 percent below 1989/90. However, projected use is forecast to exceed 1990 production by more than 60 million bushels, causing ending stocks to fall to 157 million bushels.

The June 1 *Grain Stocks* report estimated grain sorghum stocks at 220 million bushels, nearly 35 percent below a year earlier. CCC-owned stocks had dwindled to just 108 million bushels. Farmer-owned reserves (FOR) totaled 47 million bushels. As a result, free stocks at the beginning of the final quarter of the 1990/91 marketing year are estimated at 65 million bushels. During the final quarter, all FOR stocks are expected to be converted to CCC stocks. Since ending CCC stocks are projected to total 70 million bushels, sorghum supplies available to the free market during the fourth quarter will total 150 million bushels. These supplies will be sufficient to cover remaining needs as fourth quarter use is estimated at just 63 million bushels.

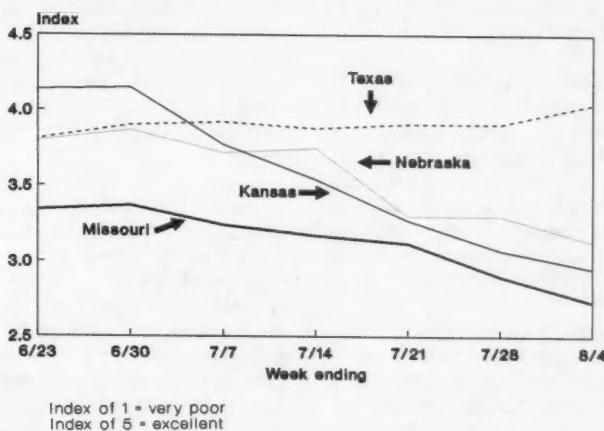
Sorghum Disappearance To Exceed Production for Fifth Consecutive Year

With smaller forecast carryin stocks for the 1991/92 marketing year and a modest reduction in production, grain sorghum supplies are forecast at 722 million bushels, their lowest since 1974/75. Tight supplies will restrict sorghum use in 1991/92 with feed and residual use stabilizing at 400 million bushels, compared with the previous 10-year average of 500 million. While lower exports, estimated at 190 million bushels, will be off 21 percent from the previous 10-year average.

The tight supply situation for grain sorghum relative to corn is expected to continue throughout the 1991/92 marketing year. In addition, the prospective smaller corn crop is expected to support higher feed grain prices during 1991/92. With corn prices received by farmers projected to average \$2.30 to \$2.70 per bushel, grain sorghum prices are forecast to average \$2.15 to \$2.55 per bushel. This reflects a sorghum-to-corn price ratio that averages over 93 percent for 1991/92, compared with an estimated 91 percent for 1990/91 and 89 percent during 1987/88 to 1989/90. Further increases of grain sorghum prices relative to corn will be limited by the abundance of "cheap" wheat that can be used for feed in the major sorghum feeding regions.

Although sorghum use is projected to decline in 1991/92, use is still forecast to exceed production for the fifth consecutive year. As a result, ending stocks are projected to decline further to 117 million bushels and the smallest carryout since the 82 million bushels of 1975/76.

Figure 2
Condition of Sorghum Crop
Selected States, 1991



Large Malting Barley Crop Is Likely

Adequate supplies of malting grade barley will moderate average farm price gains relative to other feed grains in 1991/92.

March 1 barley stocks totaled 210.9 million bushels and were augmented by imports of 8.4 million bushels for a March-May supply of 219.3 million

bushels. Use for the quarter totaled 83.4 million bushels, of which 78.4 million were used domestically and the remainder were exported. Domestic use

included 42.2 million bushels processed into malt and other food and industrial products, and an estimated 12.5 million used for seed, and feed and residual use

of 23.7 million. March-May use brought disappearance for the year to almost 459 million bushels, about 6 million above 1989/90. Exports of 79.9 million bushels were about 5 million below a year earlier, but domestic use of 378.8 million bushels was up over 10 million.

Ending stocks for the 1990/91 crop year (June-May) of 136 million bushels, were down 25 million from the previous year, and the lowest since 1976/77. About 94 percent of the ending inventories are free stocks. Further evidence of the tightening barley supply situation lies in the continued decline of the barley stocks-to-use ratio, which fell from 36 percent for 1989/90 to 30 percent for 1990/91, the lowest since 1953/54.

The tightening of the barley situation notwithstanding, barley prices for 1990/91 fell along with average farm prices for other competing feed grains. However, at \$2.14 per bushel, barley prices remained above levels of 3 out of 5 years during the last half of the 1980's. As during 1989/90, the decline was largely the result of declines in malting barley prices. At Minneapolis, malt prices fell 24 percent from 1989/90 to only \$2.42 per bushel in 1990/91.

In contrast, feed barley prices at Duluth fell just 3 percent, to \$2.13 per bushel. For the year, the differential between malting and feed barley prices declined to only \$0.29 per bushel, compared with \$1.00 in 1989/90. The largest spread on record for these markets was \$1.79 in 1988/89 when malting barley prices soared to \$4.11 per bushel.

Since the 12-month national weighted average market price for barley exceeded the basic price support of \$2.14 per bushel, USDA announced on July

22 that there will be no increased barley deficiency payments for the 1990 crop.

1991/92 Barley Outlook Favorable

The 1991/92 barley crop got off to a favorable start, with beneficial weather permitting early planting in many areas, particularly Montana, Idaho, and Washington. However, in other areas planting was late. In Montana and Idaho, crop conditions continue very promising. These two States account for 30 percent of the forecast 1991/92 barley area indicated to be harvested for grain.

Nationwide, harvested acreage is forecast to increase in 1991/92. Among other factors, farmers responded positively to a reduction in the Acreage Reduction Program (ARP) percentage from 10 to 7.5 percent, helping to raise expected harvested acres to 8.4 million, almost 1 million more than 1990/91. Yields are forecast only 0.1 bushel per acre below a year earlier at 55.8 bushels. As a result, production for the year is forecast at 470 million bushels, up 12 percent from 1990/91.

The forecast gain in production of 51 million bushels in 1991/92 will more than offset a 25-million-bushel decline in beginning inventories. As a result, barley supplies for the year are forecast up 26 million bushels to 621 million. Although rebounding somewhat, supplies remain about 15 percent below the average of the previous 10 years.

Much of the Nation's malting barley crop is in North Dakota, where over 2 million acres of malting barley varieties are likely to be harvested for malting purposes. Montana, Idaho, Minnesota, and South Dakota are also major growers. Prospects appear good for a large malting barley crop in 1991/92,

with North Dakota crop conditions only marginally below last year.

Barley use during the 1991/92 crop year is projected to increase to 475 million bushels, up about 15 million from the previous year. While exports are projected up slightly, FSI (food, seed, and industrial) use is down. FSI use, projected at 175 million bushels in 1991/92, appears to be returning to the 1980-89 average. Feed and residual use is projected at 215 million bushels, up about 20 million from 1990/91, but well below the 1985 record of 333 million. With use projected slightly below production, and imports showing only a modest expansion in 1991/92, ending stocks are projected to rise 10 million bushels.

Because feed barley prices move with corn, significant shifts in the average farm price for corn will similarly move the feed barley price and therefore the total barley price. The differential between malting barley prices at Minneapolis and feed barley prices at Duluth is expected to continue to narrow during the year, and is likely to be about 25-30 cents per bushel during the summer months, compared with 36 cents in 1990/91. Barley prices for the year are projected at \$1.90-\$2.30 per bushel.

Because of the reduced barley ARP, only about 2.0 million acres are expected to be idled under annual programs during 1991/92, down about 900,000 acres from last year. About 2.8 million acres are expected to be idle under the long-term Conservation Reserve Program, up only marginally from 1990/91. Participation in the barley programs is up from the previous year's 68 percent to almost 76 percent in 1991/92.

Oats Area Harvested for Grain Falls to Alltime Low

Oats production to fall as forecast yields decline 13 percent on a 16-percent smaller harvested area.

Oats stocks on March 1, 1991, totaled 229.3 million bushels, up 14.5 million from a year earlier. Imports during the March-May quarter were unusually large at 23.6 million bushels, up from 15.7 million during the same quarter in 1989/90. Use for the quarter amounted to 81.6 million bushels, with feed and residual use showing some strength following two consecutive quarters of substantial year-to-year declines. The larger oats supply and lower prices resulted in feed and residual use in 1990/91 rising to 293 million bushels, up from 265 million a year earlier. FSI use likewise rose, from 115 million bushels to an estimated 120 million. The popularity of oat bran has continued to boost FSI. The food-use component alone was record large, reaching 100 million bushels for the first time. Total use reached 414 million bushels, 14 million less than production plus imports. Thus, ending stocks rose 14 million to 171 million.

The season average farm price for 1990/91 was \$1.14 per bushel, down sharply from \$1.49 a year earlier and the lowest since 1977/78. In 1988/89, oats prices soared to \$2.67 per bushel. Because the 12-month national weighted average market price for oats exceeded the basic price support of \$1.01 per bushel, USDA announced on July 22 that there will be no additional oats deficiency payments for the 1990 crop.

Only about 30,000 oats acres were idled under the ARP in 1990/91. Almost 200,000 additional acres were idled

under the 0/92 program, and 1.3 million acres were in the long-term Conservation Reserve Program (CRP).

Crop Prospects Weak for 1991/92

Planted area for the 1991/92 crop, at 8.65 million acres, is forecast down about 17 percent from a year earlier. This marks the lowest planted area since oats planting data were initially recorded in 1929. Area data on oats harvested for grain have been kept since 1866. This year the area expected to be harvested for grain, at only 4.97 million acres is down 16 percent and the lowest ever.

Production prospects are off this year, as both national yields and harvested area are expected to decline. Outturn is forecast at only 260 million bushels, compared to 357 million in 1990/91 and 374 million the year before. Yield is forecast at 52.2 bushels per acre, down 13 percent from the 1990/91 yield of 60.1 bushels per acre.

The oats ARP requirement is 0 percent for the 1991 crop, down from 5 percent last year. Because there is no acreage reduction requirement, participation in the oats program is expected to have increased from 9 percent for the 1990 program to 38 percent for the 1991 crop. Idled acres again this year are expected to be quite small, but may gain in comparison with 1990. About 500,000 acres are expected to be taken out of production under annual programs. In addition 1.3 million acres are in the CRP.

This year's beginning inventory (June 1, 1991) was 171 million bushels, up from 157 million last year. This more than offset a projected 6-million-bushel decline in imports but not the 97-million-bushel decline in forecast production. As a result, oats supplies for the current year are forecast at only 496 million bushels, down 15 percent from 1990/91.

Oats consumption is projected at 386 million bushels, down 28 million from the 1990/91 crop. However, forecast FSI use is up 5 million bushels to 125 million, based largely on continued food-use strength. Feed and residual use, however, is expected to fall to 260 million bushels, compared with 293 million in 1990/91.

Recent gains in ending stocks are projected to end in 1991/92, as this year's smaller crop is below expected use. Ending inventories are projected to fall to only 110 million bushels. The stocks-to-use ratio is forecast to fall to 28.5 percent, down from 41 percent during the 2 previous years.

As with barley and sorghum, the price of oats tends to move in a parallel fashion with corn in particular, and, to a lesser extent, with other feed grains. Rising corn prices are expected to increase the feed value of oats and price of oats. The average farm price for the 1991/92 year is forecast at \$1.10-\$1.40 per bushel.

Hay

Hay Prices Decline on Record Output

Generally favorable pasture and range conditions in the major hay producing regions have combined with a 3-percent increase in area harvested to push hay production to a record 156.9 million short tons.

Hay production for 1991/92 is forecast to rise almost 10 million tons from the previous year. If realized, the crop would be record large, surpassing the 1986/87 outturn by more than 1 million tons. The harvested area for all hay is forecast at 63.1 million acres, up 3 percent from last year.

In addition to increased harvested acres, hay yields are up as well, and, at 2.48 tons per acre, may be the highest since 1986/87. In contrast, hay yields averaged only 2.31 tons per acre from 1986/87 to 1990/91.

Growing conditions are widely varied this year compared with 1990/91. Early season conditions are improved over last year in many of the Nation's major hay producing States, including Minnesota, Nebraska, South Dakota, Texas, and Wisconsin. However, conditions are somewhat poorer in some other hay States including Iowa, Kansas, New York, and Pennsylvania. By early August, range and pasture conditions were generally in the good category, better than a year earlier.

Alfalfa production is forecast at 86.2 million tons in 1991/92, about 2.7 million tons above the 1990/91 outturn, but still short of the record 91.9 million tons

of 1986/87. Improved crop prospects in some key States and an expected 440,000-acre boost in harvested area from 1990/91's 25.4 million acres account for the rise. Other hay production in 1991/92 is forecast to reach a record 70.6 million tons, 11 percent above last year.

With May 1 carryin stocks reported at 27.1 million tons (identical to those a year earlier), hay supplies for the 1991/92 year are forecast to total 183.9 million tons, up from 174.1 million last year. This total surpasses the previous record of 182.2 million tons in 1986/87.

The number of roughage-consuming animal units (RCAU's) this year is estimated at 78.5 million head, a large increase from 1990/91's 75.8 million. Although rising, the number of RCAU's remains well below that of other recent years. For example, in 1984/85 the number of RCAU's exceeded 83 million. This year's increase in RCAU's and unusually large hay supplies, and lower hay prices, indicate 1991/92 hay disappearance will exceed last year's 147.0 million tons.

Supply per RCAU is forecast to increase in 1991/92 to 2.34 tons per RCAU, up

from 2.30 and 2.16 tons in the 2 previous years. Production and disappearance will depend partly on range and pasture conditions through the rest of the season, as well as on the availability and price of other feeds.

Hay Prices Decline in 1990/91

In 1990/91 (May-April), hay prices declined in the second and third quarters and then increased seasonally in the fourth quarter. The average price received by farmers for all hay was \$83.20 per ton, down \$2.20 from 1989/90.

Alfalfa prices in 1990/91 averaged \$89.20 per ton, down \$4.60 from 1989/90's high level. The average price for other hay remained relatively steady at \$65.10 per ton, but was almost \$5.00 per ton below the 1988/89 record.

Prices weakened significantly during the first quarter of 1991/92 because of generally good pasture and range conditions and increased hay production. The May-July price for all hay averaged \$75.47 per ton, down 17 percent from 1990/91. Alfalfa hay average \$81.43 per ton, down 18 percent.

Feed Demand

More Livestock To Pressure Feed and Residual Use of Grains

Feed use in 1991/92 by the hog sector is likely to be above last year because of producers' intentions to increase sow farrowings from a year earlier.

Feed and residual use of coarse grains (corn, sorghum, barley and oats) in 1991/92 is projected to be about the same as the 138 million metric tons forecast for 1990/91. Much of the soft red winter wheat crop in 1991 is reportedly of poor quality and at least some will be fed. Also, substantial quantities of wheat will likely be fed this summer in the Southwest and Southern Plains because wheat is competitively priced with corn and other feed grains. Feed and residual use of coarse grains and wheat in the 1991/92 combined marketing year could total 148 million tons, down 2 percent from 1990/91.

Overall, the index of grain consuming animal units (GCAU's) in 1991/92 is projected to be up 1 percent from 1990/91, which was 4 percent above 1989/90. Even with the increase in GCAU's, feed and residual use of coarse grain and wheat will likely be down from last year because of stronger grain prices and ample supplies of hay and other feedstuffs.

As of June 1, 1991, U.S. hog producers reported intentions to farrow 7 percent more sows than last year during June-August and 6 percent more during September-November. Returns to hog producers were favorable during the breeding season for sows to farrow from

June through November. Thus, these intentions likely will be realized and continue the expansion in hog numbers. Pigs born during June-November will supply most of the hogs for slaughter during first-half 1992. The increase in hog numbers has already strengthened feed demand, which is expected to stay strong during the remainder of 1991 and into 1992.

The beef sector is expected to maintain a high level of grain use during the rest of 1991 and in 1992 as large numbers of cattle continue to move through feedlots. On July 1, 1991, there were 8 percent more cattle on feed than in 1990, although cattle placed on feed during April-June 1991 were below a year ago. The number of feeder cattle outside feedlots on July 1 was up 1 percent from a year ago. This larger feeder cattle supply will likely support relatively high levels of placements during the coming months.

Feed demand by the poultry sector is expected to continue strong in 1991/92. In 1991, broiler production is expected to be up 5 percent from 1990. Estimated net returns have been favorable for continued expansion. With higher corn prices expected, net returns may not be as favorable during the remainder of 1991 and through most of the 1992 feed

year. However, unless broiler prices drop more than anticipated, net returns will remain positive and encourage producers to continue feeding larger numbers of broilers.

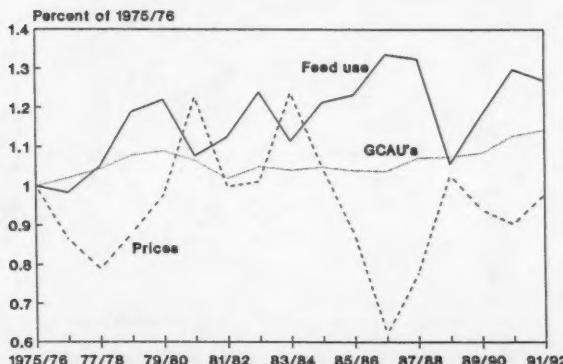
Egg production is expected to increase in 1991/92 partially due to providing hatching eggs for expanding broiler operations. Net returns have been favorable since 1989, but layer numbers have not increased as rapidly as in the past when returns were at this level. In fact, on a feed year basis, layer numbers showed year-to-year declines in 1988/89 and 1989/90. Layer numbers are projected to increase in 1990/91. Egg-type chicks hatched during January-June 1991 were up 4 percent from last year, suggesting some increase in layer numbers.

Turkey production in 1991 is expected to increase only about 2 percent following last year's 9-percent growth. Returns have been squeezed, slowing production increases. For 1992, an increase of around 3 percent is likely as producer net returns remain slim.

In contrast with other livestock sectors, the dairy sector is expected to have reduced feed demand from a year ago. The number of dairy cows on farms during April-June 1991 was nearly 1 percent less than a year ago. Even though the cows produced 1 percent more milk during the quarter, the pounds of grain and other concentrates fed per cow on July 1 were the same as last year. The value per 100 pounds of grain and other concentrates was \$7.71, compared with \$8.11 in 1990.

Milk production in 1990/91 will be up around 1 percent with the increase having occurred in the first half of the year. Cow numbers are expected to continue lower in 1991/92, but output per cow is forecast higher. Little change from the 1990/91 level of milk production is expected next year.

Figure 3
GCAU's, Prices, and Feed Use



Food, Seed and Industrial Use of Corn

FSI Use of Corn in 1991/92 Is Forecast To Rise Nearly 2 Percent

Corn used by the wet milling industry in 1990/91 is expected to be up nearly 4 percent.

FSI use of corn in 1990/91 (September/August) is expected to total 1,325 million bushels, up 3 percent from a year earlier. All of the increase is expected in wet milled products, with the largest increases in starch and sweeteners.

During 1991/92, corn used in wet corn milling is expected to increase 2 percent from 1990/91. Dry milled corn use is projected to increase 1 percent. Stronger corn prices are expected to temper wet milled use, especially industrial type uses, but population increases are forecast to boost dry milled use.

Net corn costs to wet millers are offset by the value of corn gluten feed, corn gluten meal, and corn oil. The value of the byproducts per bushel of corn in September-June 1990/91 varied from \$1.51 in January to a low of \$1.34 in May. Prices of corn gluten feed and corn gluten meal declined in May but corn gluten meal increased slightly in June, helping to increase byproduct values. Problems in exporting corn gluten feed to the EC probably have resulted in lower prices. Net corn costs to the wet milling industry are expected to in-

crease in 1991/92 because of higher corn prices that are not fully offset by expected higher prices for protein supplements.

High fructose corn syrup (HFCS) in 1990/91 is forecast to use 380 million bushels of corn, up nearly 3 percent from a year earlier. Because nearly 70 percent of HFCS is used to sweeten soft drinks, hot weather, which stimulates

soft drink sales, increases HFCS use. Weather this spring and summer has been hot in many areas of the country. Use of corn to produce HFCS was 3 percent above last year in September-May. Continued hot weather in June, July, and into August is expected to keep corn use strong.

Population increases and normal summer weather are expected to boast corn

Figure 4
Wet Milling Corn Cost

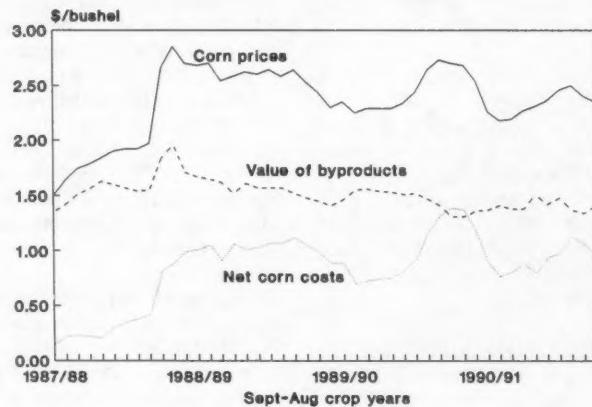


Table 2--Corn: Food, seed, and industrial use 1/

Year beginning September 1	HFCS	Wet-milled products			Dry-milled alcohol	Dry-milled and alkaline cooked products	Seed	Total
		Glucose and dextrose	Starch	Alcohol				
Million bushels								
1975	45	162	116	5	20	154	20	522
1976	62	164	116	10	15	155	20	542
1977	80	170	124	10	20	158	20	582
1978	105	170	124	15	20	155	20	609
1979	127	170	120	25	20	158	20	640
1980	165	183	120	35	35	160	20	718
1981	185	183	130	83	35	162	19	797
1982	215	188	127	130	50	170	15	895
1983	256	189	147	150	50	164	19	975
1984	310	187	143	170	100	160	21	1,091
1985	328	188	152	185	127	161	19	1,160
1986	339	185	155	200	135	161	16	1,191
1987	359	187	167	200	136	163	17	1,229
1988	362	196	164	210	139	161	19	1,251
1989	369	207	172	222	140	161	19	1,290
1990	380	215	180	230	140	161	19	1,325
1991 2/	389	222	185	230	140	164	20	1,350

1/ Data are estimates based on production and sales figures from government and private industry.

2/ Estimate.

sweetener use 2 to 3 percent in 1991/92. HFCS production in 1991/92 is forecast up 2 percent in line with recent yearly increases.

Glucose and dextrose production in 1990/91 is forecast to increase nearly 4 percent from 1989/90's 207 million bushels. During September 1990-May 1991, glucose and dextrose production was 4 percent larger than a year earlier. With sugar prices expected to remain weak in June-August, the usual seasonal pattern of use is expected for glucose and dextrose. Corn used in glucose and dextrose during 1991/92 is forecast to increase 3 percent in keeping with increased use in baked goods.

In 1990/91, corn use in starch production is expected to increase nearly 5 percent from 1989/90's 172 million bushels. In spite of the weak economy, which usually depresses starch demand,

corn used for starch production in September 1990-May 1991 was up nearly 5 percent from a year earlier. Because the economy is expected to expand slowly, demand for starch is not expected to strengthen substantially during June-August.

Starch production in 1991/92 is expected to increase nearly 3 percent, a lower rate than in recent years. While a modest increase in the economy will stimulate starch use, higher costs are expected to moderate its use.

Sales of gasoline blended with alcohol during September-March (the latest data available) were 22 percent larger than a year earlier. Much of the increase was due to the crisis and war in the Middle East which boosted gasoline prices and encouraged alcohol blending. The decline in gasoline prices during the summer has reduced the in-

centive for gasoline retailers to blend alcohol. As a result, ethanol use during the remainder of the year is forecast to be about the same as last year. Corn used to produce alcohol is expected to total 370 million bushels, with 230 million bushels used by wet corn millers and 140 million used by dry mill alcohol producers.

Use of corn for alcohol production in 1991/92 is expected to equal 1990/91. Higher corn prices will discourage corn use and if there is increased oil production from the Middle East, then gasoline prices could be expected to hold relatively steady. This combination of factors could discourage fuel alcohol production. The effects of oxygenated fuel programs in many cities is partly undetermined. However, this program is expected to increase ethanol use in the future.

Transportation Update

Rail Rates To Rise Slightly, Barge Rates Up Sharply

Supply of transportation equipment will remain adequate. Projected corn and soybean use for 1991/92 suggests changes in transportation demand.

Exports and domestic consumption of total grains and soybeans for 1991/92 are now projected at 349 million metric tons, slightly below 1990/91. Domestic use is projected to be 0.7 percent below 1990/91, suggesting some slackening in demand for rail transportation from this year. Exports are projected down 0.5 percent from this year. Corn exports are projected down more than 4 percent. Since barge shipments account for 50-60 percent of corn exports, demand for barge transportation is expected to fall from depressed 1990/91 levels.

Outlook for 1990/91 Remains Unchanged

For the current crop year, total use of grain and soybeans is forecast down 2 percent from the prior year. Corn exports are forecast down 27 percent and soybean exports down 10 percent. Shipments of grain by rail and barge continue well below last year. Rail shipments (September-July 1990/91) averaged 11 percent below last year and barge shipments are also down 11 percent.

Barge Volume Up Sharply in July; Return to 1989-90 Levels Doubtful

Barge shipments of grain were down seasonally during May and June 1991, but rose sharply in July. Volume, so far this year, (September-July 1990/91) has averaged 3.3 million tons per month, 11 percent below the same months of 1989/90. In May volume declined 8 percent from April to 3.7 million tons and June posted a further decline to 3.6 million tons. These decreases largely resulted from substantial declines in corn and soybean exports through U.S. Gulf ports. In June, corn and soybean exports, as measured by inspections for export, through Gulf ports totaled 121 million bushels, 32 percent less than June 1990. During September-June of the 1990/91 year, corn exports through the Gulf lagged 312 million bushels, 22 percent, below the same months of the

prior year. Total grain and soybean exports averaged 16 percent below the same months of 1989/90.

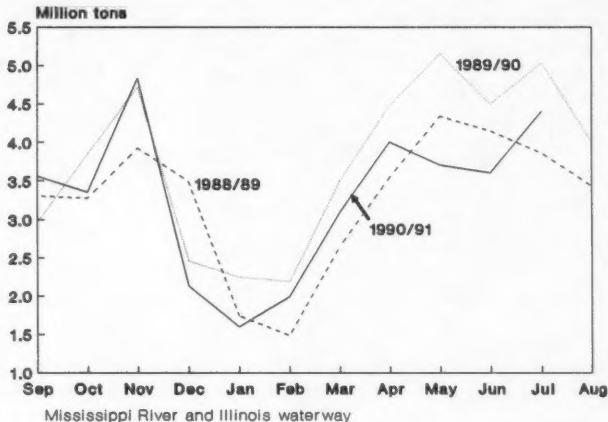
In July, barge shipments rose 22 percent from June to 4.4 million tons, but 12 percent below the prior year. Grain shipments through Lock & Dam 27 in the first 2 weeks of August, averaged 24 percent below July. Corn showed the largest decrease, 24 percent. Shipments of other grains and oilseeds also

dropped significantly. Declining exports in 1991/92 are likely to hold river traffic in grains below 1990/91 levels.

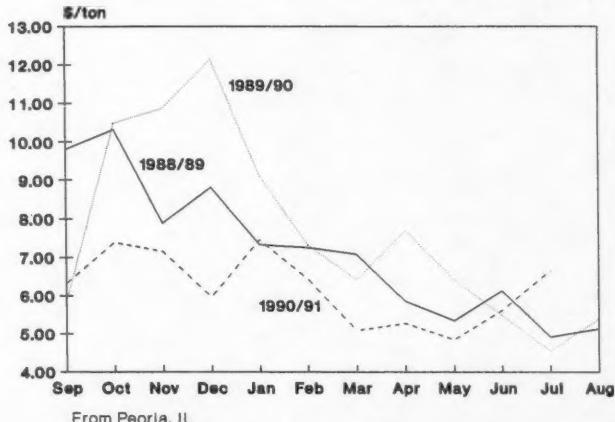
Volatility Returns to Barge Rates, Which Rose Sharply in June-July

In May, barge rates to New Orleans from Peoria averaged 8 percent below April's \$5.28 per ton. Rates from St. Louis averaged down 11 percent to \$3.44 per ton. June saw increases of 16

**Figure 5
Average Monthly Shipments of Grain**



**Figure 6
Barge Rates to New Orleans**



percent at Peoria and 20 percent at St. Louis. Further increases characterized July, when rates averaged \$6.65 per ton from Peoria and \$4.90 from St. Louis, up 37 and 42 percent, respectively, from May.

Increased volume accounted for part of the upswing in rates, but decreased availability of barges also played a role. Some barges appear to have been taken out of service in response to the low rates and reduced demand that have characterized 1990/91. Through July, rates from Peoria to New Orleans have averaged 19 percent below 1989/90 levels. Additionally, a number of barges were reported to be located where they were not needed.

Preliminary data indicate that rates continued to rise in early August. In the first week of August rates from Peoria to New Orleans averaged \$8.18 per ton, 23 percent above July. Similarly, rates from St. Louis rose 29 percent. These increases appear to result chiefly from navigation restrictions imposed on barges downstream from Cairo, Ill. Barge drafts have been limited to 9 feet and tows are limited to 30 barges. Additional rate increases, however, are not expected in the face of declining volume.

Navigation Conditions Expected To Remain Adequate through October

Mississippi River navigation conditions for the remainder of 1991 should remain adequate, but less favorable than last year. Low water in the Missouri River, normally the source of 40 or more percent of total water flow at St. Louis, is likely to cause water levels downstream from St. Louis to remain below last year.

In July, the Mississippi's depth at St. Louis, as measured at the flood gauge, averaged 11.6 feet, 13 percent below the 1944-88 average and 38 percent below July last year. Historically, water levels fall sharply in August and remain below 8 feet during August-February. Under these conditions, navigation sometimes becomes impaired as sandbars and other navigational hazards develop. At mid-August, the St. Louis gauge averaged 6.6 feet, 54 percent below August 1990 and 13 percent below the 1944-88 average.

The 30 day U.S. Army Corps of Engineers' forecast of river conditions on the Lower Mississippi indicates that water levels could fall less than 3 feet by mid-September. This forecast assumes that no additional precipitation will occur during the period of the forecast. A 3-foot reduction in depth would still result in levels well above August 1988 and 1989 when the St. Louis gauge averaged 0.2 and -0.3 feet, respectively. At this time there is no reason to believe that the shoal water of 1988 or 1989 will recur in 1991.

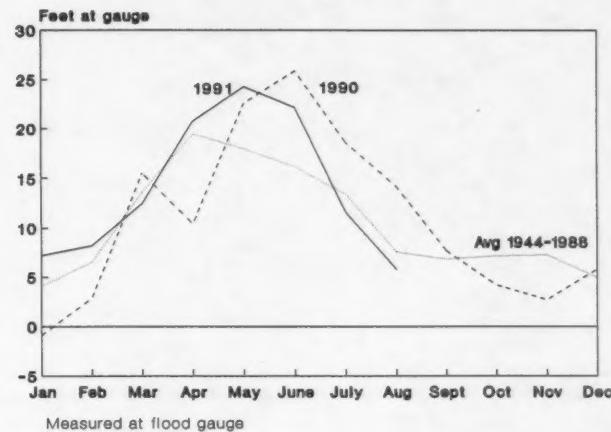
Short Navigation Season on the Missouri River Continues

Following a mid-season evaluation, the U.S. Army Corps of Engineers an-

nounced that it will continue its plan to end navigation on the Missouri River on November 1, 1991, one month early. The Corps also announced that it will continue to maintain minimum channel depths, limiting barge drafts to 7.5 feet. A similar short season was in effect last year when lower channel depths decreased barge load size by 10-15 percent.

In July, following relatively high water at Sioux City and Kansas City, water levels fell below last year, down 2 percent at Sioux City to 16.5 feet and 12 percent at Kansas City to 13.1 feet. Last year, readings at the Sioux City flood gauge fell 5 feet in November to 10.4 feet as the navigation season closed. Readings at Kansas City in the same

**Figure 7
River Stages at St. Louis**



**Figure 8
River Stages at Sioux City**

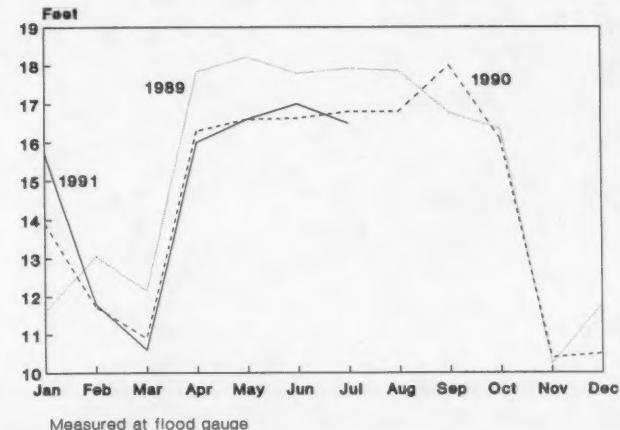


Figure 9
River Stages at Kansas City

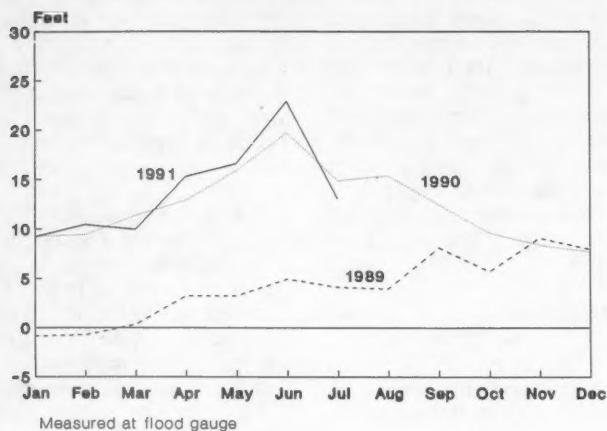


Figure 10
Rail Car Loadings of Grain & Soybeans

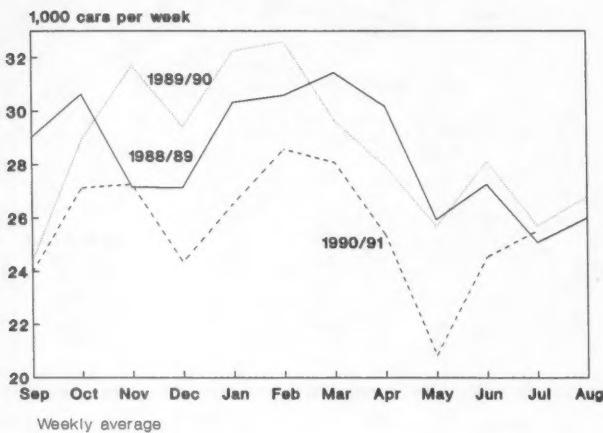
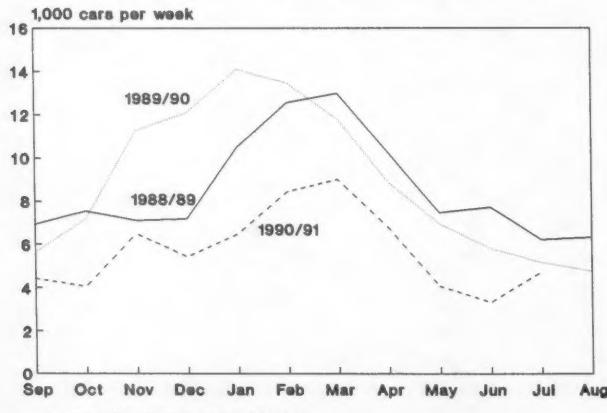


Figure 11
Rail: Weekly Average Grain Unloadings



month rose 3.4 feet, up 40 percent, due to precipitation in the Missouri Water-shed. Early in August, the Sioux City gauge averaged 17.1 feet, 2 percent above a year earlier. At Kansas City, the gauge averaged 12.7 feet, 18 percent below a year earlier.

The short season and draft restrictions will not significantly impair U.S. grain flows, but will again hamper the competitive position of grain merchants and producers in the Missouri Valley.

Rail Volume Averages Below Last Year, But Up in June and July

Rail shipments of grain and soybeans during September-July 1990/91 averaged 25,611 cars per week, 11 percent below the same period of 1989/90. Volume fell sharply in May, 16 percent from April, to 20,840 cars per week. Shipments increased in June and July. For July, loadings of grain averaged 25,522 cars per week, up 22 percent from May.

Most of the September-July 1990/91 decline resulted from a sharp drop in deliveries of grain to export points by rail. These shipments fell 38 percent from the same period of 1989/90, averaging 3,607 fewer cars per week. The largest decline was at Pacific Coast ports, which fell 1,490 cars per week, 34 percent. Exports of corn through these ports, as measured by inspections for export, declined 48 percent (September-June 1990/91) from a year earlier, averaging 23.6 million bushels per month.

In July 1991, rail deliveries for export rose 29 percent from June to 4,293 cars per week. In contrast, deliveries in July 1990 had averaged 5,175 cars per week, 17 percent higher.

Rail Volume Likely Up at Harvest

Rail shipments of grain are likely to increase seasonally in October and November. Production of coarse grains and soybeans in 1991/92 is now projected at 268 million metric tons, down 5 percent from 1990/91. Sufficient rail cars will generally be available during August-November 1991. The spot shortages of rail cars that usually occur during harvest should be less frequent than last year. In early August, the

available supply of jumbo covered hopper cars (4,000 cubic feet and more capacity), at 245,896 cars, was only slightly larger than a year earlier. While not all of these will be used for grain, car supply is adequate to support loadings well above current levels. During October-November 1990, grain car loadings averaged 27,189 cars per week and as many as 30,000 cars were loaded in some weeks.

Harvesttime Rail Rates Projected Slightly Above Last Year

The Bureau of Labor Statistics' rail rate index for grain averaged 111.5 (Dec. 1984=100) during September-July 1990/91, 2 percent above a year earlier. In July 1991, rates were nearly 3 percent above a year earlier. Rail rates are projected to remain at current or fractionally above current levels through October. The Interstate Commerce Commission (ICC) now estimates costs of rail operation during July-September, as adjusted for productivity, to decline 0.6 percent. Much of this results from a projected 4.5-percent reduction in fuel costs offsetting increases in other components.

Unit Train Bids Steady to Unchanged

The Burlington Northern's minimum acceptable bids for 54-car unit trains of corn under the Certificate of Transportation (COT) Program remained essentially unchanged between August 1990 and August 1991. These bids apply to shipments of corn, sorghum, or soybeans.

In the East Corridor, minimum acceptable bids for October delivery of cars were \$1,788 per car on August 12, 1991, unchanged from August 1990. In the West Corridor, the August 12, 1991, COT bids for October delivery were \$2,590 per car, only \$80 higher than in August 1990.

Single Car Bids Up Fractionally

COT minimum bids for single cars in the South Corridor rose 2 percent, August-to-August, to \$3,650 per car. In the East Corridor, bids rose 3.6 percent to \$860 per car.

Diesel Fuel Prices Down

The ICC reports diesel fuel prices well below a year earlier. Most of the fall, however, results from changes in the price series. Commencing July 1, 1991, the ICC revised diesel fuel price collection procedures. Prices now reflect "self-service" at the pump except in those States where "full-service" is required by law. The change caused

average prices to fall about 6 cents per gallon. The apparent decline in average fuel prices (June-July) actually indicates that fuel prices remained nearly constant in both months. The revised July average price, \$1.103 per gallon, is 10 cents below August 1990. Average prices moved up in August to \$1.12 per gallon, but are unlikely to return to September-November 1991 levels, \$1.42-1.56 per gallon, in the next few months.

Figure 12
Rail Rate Index for Grain

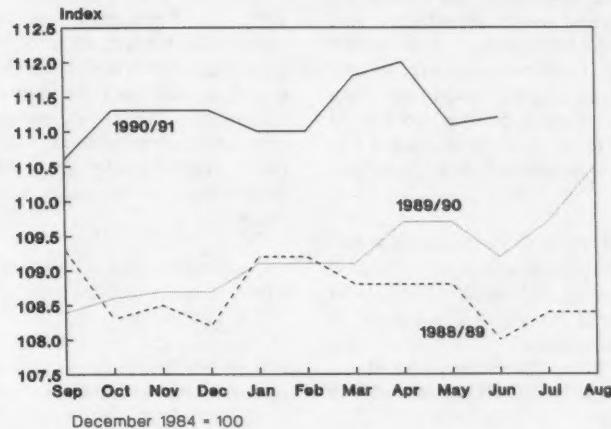
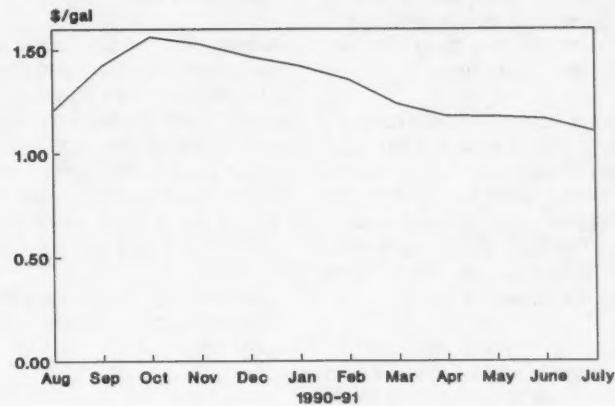


Figure 13
Monthly Average Diesel Fuel Price



World Coarse Grain Outlook

Global Supply and Use of Coarse Grains Projected Down in 1991/92

Declining U.S. and foreign production will tighten supplies. While consumption is expected to drop, the ratio of world ending stocks-to-use is projected to fall to the lowest level in nearly 20 years.

World 1991/92 production of coarse grains is projected to decline 3.5 percent to 799 million tons, reflecting both lower U.S. and foreign crops. The biggest year-to-year decline among the coarse grains is expected in barley, with sizable declines also projected in rye and oats. Global corn output is expected to fall only slightly, despite the sharp decrease in the U.S. crop, because of gains in foreign corn production. Little change is anticipated in sorghum output.

Although global 1991/92 carryin stocks are expected to be up 4 percent, the drop in production will more than offset this and world coarse grain supply is projected to shrink 2 percent in 1991/92. World ending stocks of coarse grains are projected to fall 10 percent to 116.5 million tons--the lowest since 1983/84--as U.S. and foreign stocks both decline.

Global consumption of coarse grains in 1991/92 is projected to fall 1 percent to 812 million tons. Foreign coarse grain consumption is projected to decline nearly 2 percent to the lowest level in 4 years, mainly due to a sharp reduction in use by the Soviet Union.

The ratio of world ending stocks to use, forecast at 15.7 percent in 1990/91, is projected to drop to 14.4 percent in 1991/92. This would be slightly lower than 1983/84, and the lowest since 1973/74. This tightening of coarse grain supplies is expected to lead to higher prices in world markets.

Global wheat supplies will also be tighter in 1991/92, and ending stocks are projected to decline 7 percent. However, wheat price increases will be moderated by sharp competition in wheat markets and extensive use of export subsidies. Many wheat exporters will have large supplies because of bumper crops and/or large carryin stocks.

Foreign Production To Fall from 1990/91 Record

Foreign coarse grain production is projected at 582 million tons in 1991/92, 2.5 percent below the year-earlier record, estimated at 597 million. However, weather and economic conditions can still alter the outlook significantly. Although harvests of spring-planted crops will be starting soon in the Northern Hemisphere, most Southern Hemisphere crops have yet to be planted.

Foreign corn output is projected to rise 4 percent to a record 281 million tons in 1991/92. If realized, this would be 4 million tons greater than the previous high in 1988/89. Most of the increase is due to a big rebound in European production from the drought-reduced 1990/91 crop. In Western Europe, France accounts for most of the projected gain. Corn crops will also be up significantly in Eastern Europe as better growing conditions are expected to result in sharply higher yields.

Among foreign producers, Eastern Europe is expected to register the largest year-to-year gains in total 1991/92 coarse grain production, largely because of its big corn crop. The region's coarse grain harvest is forecast up 5.7 million tons, even though output of barley, oats, and rye is projected to fall. Like Eastern Europe, the European Community (EC) is also forecast to achieve a large production gain of 5.4 million tons, primarily due to a bigger corn crop.

The Soviet Union is expected to show the largest decline in coarse grain output among foreign producers. The Soviet crop is projected at 91.5 million tons, a drop of nearly 22 million from 1990/91. Soviet total grain production is forecast at 190 million tons, down 45 million from the bumper 1990 crop, and the

lowest in 7 years. Yield prospects, already clouded by inadequate input supplies and equipment shortages, were reduced by several weeks of hot, dry weather in many of the major spring grain areas. Also, recent harvest reports indicate that winter grain yields were less than expected.

Competitor Crops Mixed

The production outlook is mixed among competing coarse grain exporters, particularly for corn. The marked recovery in the EC corn crop will allow the EC to reemerge as a substantial exporter in 1991/92. In China, the largest foreign corn exporter, corn output is forecast to fall 7 percent from the 1990/91 record. Some area planted to corn last year was switched to other crops and conditions point to lower yields. The extensive flooding that has occurred this summer in China is not expected to have a major impact on the corn crop. Wheat, rice, and cotton are more likely to be affected.

Argentina's 1991/92 corn production is projected to decline 8 percent, despite a small rise in area, and sorghum output 25 percent, with area unchanged. Although the harvest of each in 1990/91 was delayed by unusually heavy rains, conditions were exceptionally good for most of the season, propelling estimated yields of both crops to records. Argentina's ability to react to higher world prices in 1991/92 by increasing plantings may be constrained by farmers' limited confidence in the local economy and their strapped financial position. Producers' plans could also change in coming months depending on relative price movements of oilseeds and coarse grains.

South Africa is forecast to increase production about 1 million tons from 1990/91, assuming normal weather permits an increase in area and yields.

Recent political changes and the end of trade sanctions against South Africa by some countries are not likely to have any significant impact on its corn production or trade. No structural changes in agriculture are expected in the short term, while trade changes will probably be minimal--sanctions had little impact on South Africa's corn exports in the past. South Africa's recent efforts to cut expenditures on export subsidies for corn will likely have a greater bearing on its future production and trade patterns.

Competitor barley supplies will be large in 1991/92 as a result of prospective production increases in Australia,

Canada, and Turkey, and another large EC crop. In Turkey, a sporadic exporter, the crop is forecast up 13 percent, and comes on top of a large crop in 1990/91. Australia is expected to increase barley output by 5 percent to 4.35 million tons. Farmers there switched some land from wheat to barley because of relative price expectations.

Canada's barley crop is forecast up 3 percent in 1991/92 to 14.5 million tons, the second highest ever. Barley area is up only slightly, but abundant moisture has aided crop development and record yields are forecast. Coarse grain area in Canada is down slightly in 1991/92, reflecting a reduction in rye and oats.

However, total grain acreage planted by Canadian farmers this year is forecast at a near-record, and includes record wheat acreage, despite relatively low prices. Mostly excellent weather at planting and the Gross Revenue Insurance Plan, a new safety net program for farmers, bolstered area.

For the EC, the world's leading exporter, barley area is forecast down slightly. This is consistent with the downward trend in EC barley plantings since 1980, mainly reflecting shifts into wheat. However, production in 1991/92 is forecast to slip less than 1 percent to 50.3 million tons.

World Trade and U.S. Exports To Fall Again in 1991/92

World coarse grain trade is projected down more than 2 percent to 83 million tons, despite expectations of record trade in barley. U.S. coarse grain exports are projected to decline 6 percent in 1991/92, also the second consecutive decline.

World coarse grain trade in 1991/92 is projected to fall nearly 2 percent from 1990/91 to 83 million tons.¹ U.S. coarse grain exports are projected at 48.7 million tons, down from 51.7 million forecast for 1990/91, and the lowest since 1986/87. The EC is expected to realize the largest year-to-year export gains of all competitors, followed by Australia, Canada, and Argentina. Declines are forecast for South Africa and China, and no change for Thailand. The U.S. share of the world coarse grain market is projected at 59 percent, compared with 61 in 1990/91. This would also represent the lowest market share for the United States since 1986/87.

As in 1990/91, most of the projected drop in world coarse grain trade in 1991/92 will occur in corn and sorghum. The volume of corn trade in 1991/92 is expected to be the lowest in 5 years and sorghum the lowest in 6 years. However, world barley trade, up a forecast 13 percent in 1990/91, is expected to increase another 6 percent to

a record 18.6 million tons, largely on the strength of expected Soviet imports.

The outlook for reduced U.S. corn exports stems mainly from expected sharp competition from barley and feed wheat in key markets and, to lesser extent, export gains by foreign corn exporters. The forecast of lower U.S. sorghum exports mainly reflects the tighter U.S. supply situation.

Competition in barley trade is expected to remain intense in 1991/92. Shipments by all of the major exporters--the EC, Australia, and Canada--are forecast up. The Soviet Union is projected to surpass Saudi Arabia as the largest barley importer in 1991/92.

U.S. barley exports are forecast up, but will depend heavily on sales under the Export Enhancement Program (EEP), particularly for sales to the Middle East and North Africa. U.S. sales are focused on a relatively small number of countries. Since 1986/87, Saudi Arabia has been the major market for U.S. barley. Other U.S. destinations for 1990/91 sales included Jordan, Algeria, and Is-

rael. The Soviet Union does not generally buy barley from the United States.

The disappointing outlook for demand for U.S. corn by major markets in 1991/92 is similar to the previous year: the continuation of declining corn imports by the Soviet Union; in South Korea, sharp competition from China's corn exports and large imports of feed wheat; and in Mexico the continuation of abundant domestic corn supplies limiting import demand.

Soviet Corn Imports Likely To Slip Further

Soviet imports of corn in 1990/91 are forecast at 9.8 million tons, compared with 17.8 in the previous year. The prospective sharp drop in Soviet grain production, lagging procurements, and widely reported feed shortages, which have led to declines in livestock inventories, are not likely to spur large corn imports in 1991/92, however. Soviet economic and financial prospects continue weak, limiting its ability to import, and import decisions are more likely to favor wheat and barley over corn, given world market prospects.

¹ All trade years referred to in this section are October-September and exclude intra-EC trade.

Table 3--World coarse grain trade: Major exporters and importers by commodity, 1987/88-1991/92 1/

Item	1987/88	1988/89	1989/90	1990/91 2/	1991/92 3/
Million metric tons					
CORN					
Exporters:					
U.S.	44.5	51.3	59.9	44.5	42.0
Argentina	3.7	2.5	3.0	4.1	4.2
China	4.1	3.7	3.2	6.0	5.5
Thailand	0.7	1.4	1.4	1.2	1.2
South Africa	0.6	2.0	2.9	0.7	0.1
Others	3.1	2.8	2.7	0.7	2.0
Total	56.7	63.8	73.0	57.2	55.0
Importers:					
Japan	16.7	15.9	16.2	16.2	15.9
USSR	7.9	17.9	17.8	9.8	8.0
EC-12 4/	4.4	2.9	4.1	3.3	2.0
Korea, Rep.	5.0	5.7	6.1	5.0	5.0
Taiwan	4.2	4.2	5.3	5.4	5.5
Mexico	3.2	3.2	5.0	2.0	2.5
China	0.2	0.0	0.5	0.0	0.0
East Europe 5/	1.4	1.7	2.5	1.5	0.3
Brazil	0.0	0.2	0.4	1.0	0.8
Egypt	1.4	1.2	1.4	1.5	1.8
Others	12.3	10.9	13.7	11.5	13.2
Total	56.7	63.8	73.0	57.2	55.0
SORGHUM					
Exporters:					
U.S.	6.1	8.1	7.3	5.7	4.8
Argentina	1.2	0.7	1.2	1.4	1.6
Australia	0.6	0.3	0.0	0.1	0.2
Others	0.5	1.7	0.5	0.4	0.4
Total	8.3	10.8	8.9	7.6	7.0
Importers:					
Japan	3.9	4.1	3.9	3.6	3.6
Mexico	0.9	2.3	3.0	2.5	2.2
Taiwan	0.3	0.1	0.0	0.1	0.1
Venezuela	1.7	1.0	0.1	0.0	0.0
Israel	0.4	0.4	0.4	0.3	0.3
USSR	0.0	1.2	0.3	0.0	0.0
Others	1.1	1.7	1.2	1.1	0.8
Total	8.3	10.8	8.9	7.6	7.0
BARLEY					
Exporters:					
EC-12 4/	7.0	9.0	6.8	8.0	8.5
Canada	3.5	3.4	3.7	4.5	5.0
Australia	1.6	1.4	2.6	1.7	2.0
U.S.	2.9	1.7	1.9	1.5	1.9
Others	0.9	1.3	0.6	1.9	1.3
Total	16.0	16.8	15.6	17.6	18.6
Importers:					
Saudi Arabia	4.8	4.6	3.3	4.5	4.5
USSR	2.3	3.2	4.4	4.2	6.5
East Europe 5/	0.8	0.9	0.4	2.1	0.8
Japan	1.3	1.3	1.3	1.2	1.3
Others	6.8	6.8	6.2	5.6	5.6
Total	16.0	16.8	15.6	17.6	18.6
COARSE GRAINS					
TOTAL TRADE	82.9	94.2	100.0	85.0	83.0

1/ October-September year, excludes intra-EC trade. Totals may not add because of rounding. 2/ Forecasted. 3/ Projected.
4/ Includes former East Germany. 5/ Excludes former East Germany.

The USSR's coarse grain imports are projected at 15 million tons, compared with 14.1 million in 1990/91. While corn imports are projected down 18 percent to 8 million tons, Soviet barley imports are projected up more than 50 percent to 6.5 million tons. There are expected to be large exportable supplies in several countries which have previously provided credit to purchase barley, or which have entered into barter or "other" trade arrangements.

Soviet wheat imports are expected to increase 40 percent, however, to 21 million tons, the highest in 4 years. This largely reflects the projected decline of more than 22 million tons in Soviet wheat production. In addition, like barley, there are a number of wheat exporters with large exportable supplies which have offered the USSR credit or entered into other trade arrangements. Also, intense competition will mean a continuation of relatively low international wheat prices.

In June 1991, the United States offered an additional \$1.5 billion in GSM-102 credit guarantees for the purchase of U.S. agricultural products by the USSR. The new package contained a \$600-million allocation for the remainder of fiscal 1991, including a further \$285 million for feed grains. An earlier allocation of \$1 billion in credit guarantees had included \$530 million for feed grains, all used for corn. As of August 8, the Soviets had purchased 9,163 million tons of U.S. corn in 1990/91. Another \$500 million will be released in October and \$400 million in February, but the commodity allocations for these have not been decided yet.

EC Barley Exports Projected Up Again

EC coarse grain exports are projected to rise 14 percent to 9.5 million tons in 1991/92. While EC corn exports are expected to rebound from a negligible level in 1990/91 to 1 million tons, EC barley exports are up 6 percent to 8.5 million, second only to 1988/89's 9 million tons.

In 1991/92, the EC is expected to experience a record surplus of coarse grains, indicated by the gap between production and consumption. EC consumption is forecast up 3 percent to 81.5

million tons, mainly because of the rebound in corn production in France. However, this is 8 million tons below forecast production and 25 million tons below the peak reached in coarse grain consumption in the late 1970's. EC coarse grain use has been trending down since then, while production has remained relatively high. Greater use of nongrain feeds and feeding of wheat explain much of this development.

EC wheat supplies are also expected to be very large in 1991/92. Although record EC wheat exports are projected, total grain ending stocks are also likely to be record large, straining storage capacity and putting further pressure on the farm budget. All EC grain exports require large subsidies to bridge the gap between high internal prices and lower prices in world markets, while expenditures on storage costs are reportedly even larger than those for export subsidies.

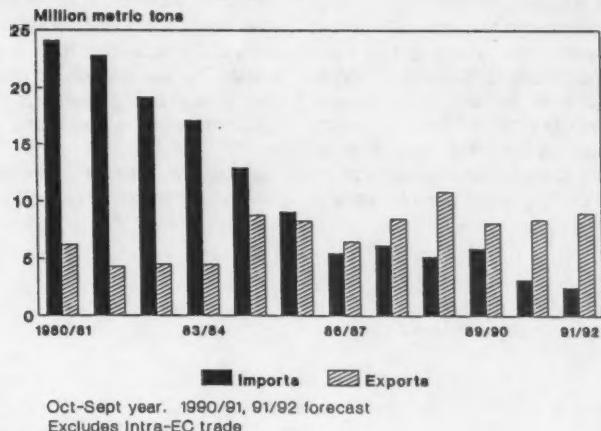
South Korea Buying Less U.S. Corn

U.S. corn exports to South Korea have plummeted in 1990/91 because of increased purchases of corn from China and large purchases of wheat for feeding. As of August 8, U.S. sales of corn stood at 2.1 million tons, compared with 5.7 million a year earlier.

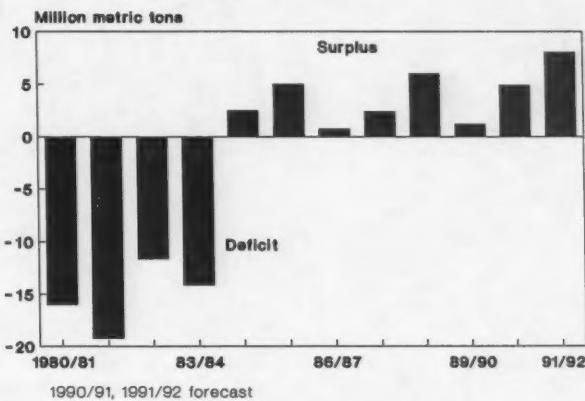
Imports of corn from China, which totaled about 500,000 tons in 1989/90, have reached more than 2 million tons in the first three-quarters of 1990/91, and reportedly have continued strong in recent weeks. Imports from China are projected to remain large in 1991/92, as China is expected to continue to price its corn below the United States. The pickup in purchases from China that started in 1990 reflects not only China's abundant supplies after its record crop, but also improved political ties that have apparently facilitated trade.

Virtually no growth is projected in South Korea's coarse grain imports in 1991/92 due to an expected increase in imports of wheat for feeding. In 1990/91, its coarse grain imports are forecast down a fifth because of a surge in imports of wheat for feeding to an expected 2.5 million tons or more from around 200,000 tons in 1989/90.

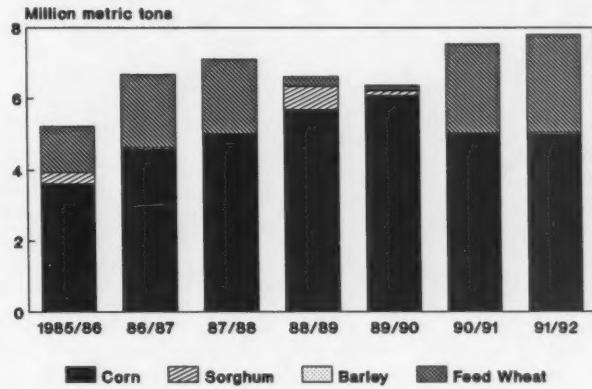
**Figure 14
EC Coarse Grain Trade**



**Figure 15
EC Coarse Grains
Production Minus Consumption**



**Figure 16
South Korea Imports of Feed Grains**



Since the early 1970's, South Korea has been an impressive growth market for coarse grains, reflecting strong economic growth and per capita meat consumption that was at a low base level. South Korea previously imported large amounts of feed wheat during 1985/86 to 1987/88 when wheat prices were similarly attractive. Nevertheless, its coarse grain imports still grew at an average of 10 percent per year during the 1980's.

Since 1988, South Korea has permitted beef imports under quota, and the quota was enlarged in 1991. However, this has had little, if any, impact on feed grain use, in the face of soaring demand for meat. The outlook for the next year is for continued growth in domestic production of beef, pork, and poultry.

South Korea is extremely price responsive and is the world's main importer of wheat for feed. These imports do not

necessarily consist of low quality or damaged wheat, but simply wheat that is priced attractively relative to coarse grains. Over the last year, South Korea has been buying wheat for feed at discounts to corn mostly ranging from \$25 to \$35 per ton, sourced from Australia, Canada, and the EC. Use of corn for industrial processing, amounting to around 1.5 million tons in 1990, has not been affected.

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Appendix table 1--Feed grains: Marketing year supply and disappearance,

Year 2/	Supply				Food, alcohol, and industrial
	Begin- ning stocks	Produc- tion	Imports	Total	
1984/85	39.6	236.8	0.7	277.1	31.4
1985/86	57.5	274.3	0.8	332.5	33.5
1986/87	126.4	251.6	0.7	378.7	34.2
1987/88	152.1	216.5	1.0	369.6	35.6
1988/89	133.6	149.3	1.2	284.2	36.3
1989/90	65.9	221.0	1.3	288.2	37.5
1990/91 4/	45.5	230.4	1.4	277.3	38.7
1991/92 5/	48.3	216.8	1.3	266.4	--40.

	Area		Harvest for grain
	Set-aside and diverted	Planted	
---Million hectares---			
1984/85	2.1	49.5	43.1
1985/86	2.9	51.8	45.1
1986/87	7.3	48.5	41.1
1987/88	12.5	43.1	35.1
1988/89	11.1	41.2	32.1
1989/90	6.8	43.0	36.0
1990/91	6.9	41.8	36.0
1991/92	4.9	42.3	37.1

1/ Aggregated data on corn, sorghum, barley, and oats. 2/ The market barley, June 1. 3/ Includes total Government loans (original and rese

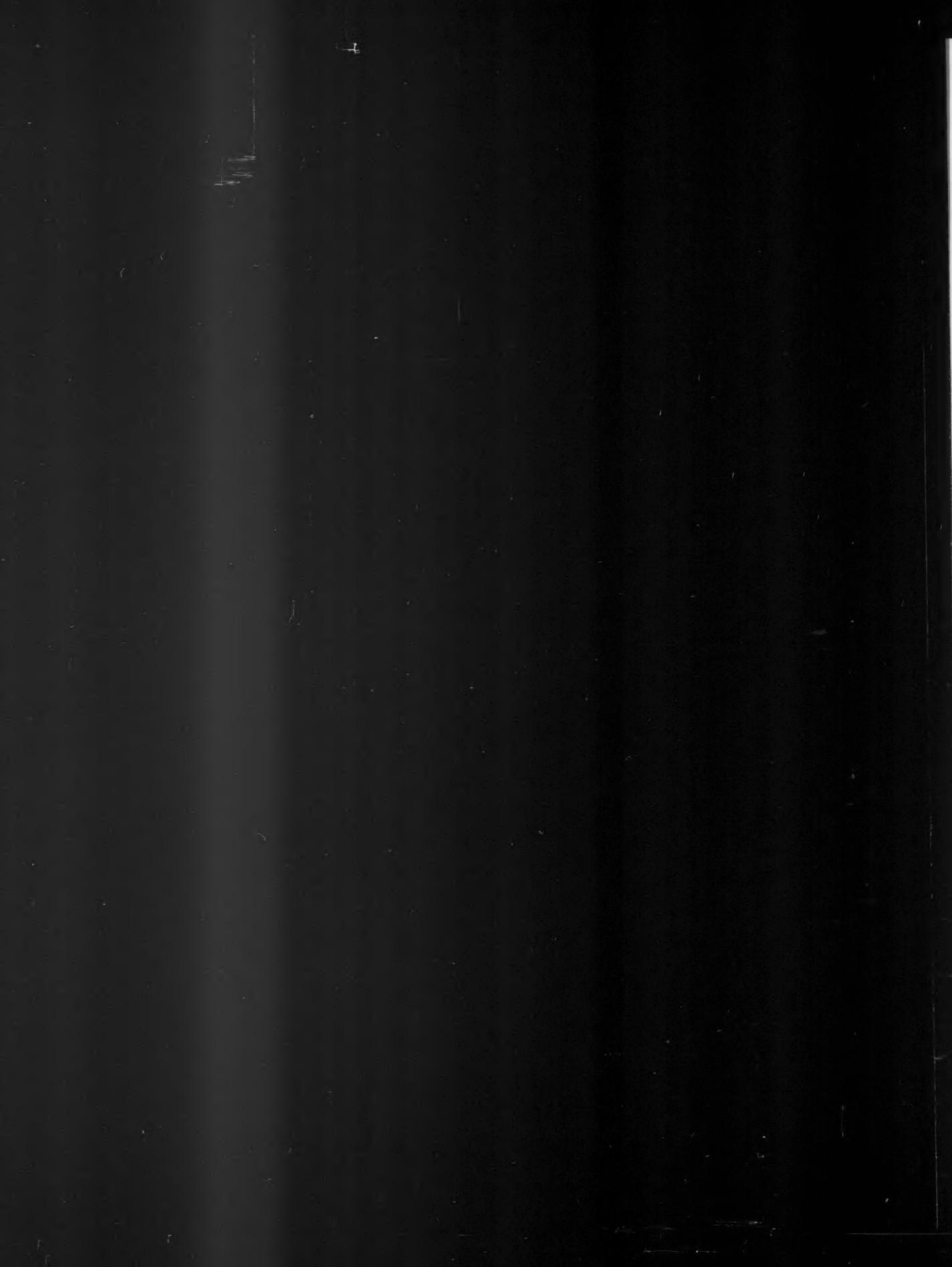
7/ Deficiency payments. 8/ Deficiency and diversion payments.

alance, area, and prices, 1984/85-1991/92 1/

Food, seed, and residual	Seed	Disappearance			Ending stocks			
		Feed and residual	Total	Exports	Total disap- pearance	Govt. owned	Privately owned 3/	
Million metric tons								
4.4	1.5	130.6	163.5	56.1	219.6	8.9	48.6	57.5
5.5	1.5	135.1	170.0	36.1	206.2	20.4	106.0	126.4
6.2	1.4	145.1	180.7	45.9	226.6	48.7	103.4	152.1
6.6	1.3	146.9	183.7	52.3	236.0	34.1	99.5	133.6
7.3	1.2	119.6	157.1	61.1	218.2	18.6	47.3	65.9
7.5	1.1	134.3	173.0	69.7	242.7	10.5	35.0	45.5
7.7	1.1	138.1	177.8	51.2	229.0	11.2	37.1	48.3
--40.3---		138.6	178.9	48.6	227.5			38.9

Harvested for grain	Yield per harvested hectare	Index Average price received by farmers 6/	Government- support program
			Total payments to participants
	Metric tons	1977=100	\$ million
43.2	5.48	130	7/ 1,860
45.2	6.07	110	7/ 2,785
41.1	6.12	74	8/ 7,343
35.2	6.15	96	8/ 8,461
32.6	4.58	126	8/ 3,157
36.9	5.99	118	7/ 3,915
36.2	6.35	114	7/ 3,403
37.2	5.83		

Marketing year for corn and sorghum begins September 1; for oats and rye (seeal). 4/ Preliminary. 5/ Projected. 6/ Excludes support payments.



Appendix table 2--Foreign coarse grains: Supply and disappearance, 1980/81-1991/92 1/

Year	Beginning stocks	Production	Feed	Total Disappearance	Imports	Adjusted imports 2/	Ending stocks
Million metric tons							
Corn:							
1980/81	45.8	240.1	168.4	297.7	79.1	78.1	48.9
1981/82	48.9	235.1	175.9	291.0	77.6	67.3	43.8
1982/83	43.8	230.3	174.3	281.3	73.2	63.3	39.1
1983/84	39.1	241.6	167.7	288.7	64.9	61.1	39.8
1984/85	39.8	264.0	183.6	303.4	72.5	66.6	47.4
1985/86	47.4	253.9	185.7	291.0	62.1	54.3	41.2
1986/87	41.2	265.4	193.2	307.3	61.1	56.6	37.2
1987/88	37.2	268.6	196.3	310.9	62.8	56.6	38.4
1988/89	38.4	276.8	211.6	326.9	73.4	63.8	39.7
1989/90	39.7	269.6	216.6	332.2	80.4	73.0	37.2
1990/91 3/	37.2	268.9	196.6	313.9	61.1	57.2	36.0
1991/92 4/	36.0	281.0	203.3	324.6	59.4	55.0	34.1
Sorghum:							
1980/81	6.9	44.6	23.3	50.8	12.8	14.1	8.1
1981/82	8.1	48.1	28.5	55.5	14.3	13.7	7.4
1982/83	7.4	44.0	25.2	50.5	12.3	11.6	6.1
1983/84	6.1	46.5	25.7	52.3	13.1	13.0	6.5
1984/85	6.5	44.0	26.1	52.1	12.9	13.1	6.0
1985/86	6.0	42.0	24.9	47.6	9.6	8.8	5.0
1986/87	5.0	40.6	23.3	46.4	8.1	7.8	4.2
1987/88	4.2	37.8	22.7	44.9	8.7	8.3	3.1
1988/89	3.1	40.3	24.1	47.0	10.9	10.8	4.3
1989/90	4.3	39.1	21.7	46.6	9.3	8.9	4.5
1990/91 3/	4.5	38.7	21.2	44.9	7.9	7.6	3.9
1991/92 4/	3.9	38.8	20.6	44.5	7.1	7.0	2.9
Barley:							
1980/81	16.9	155.4	107.5	156.7	16.2	13.8	17.1
1981/82	17.1	144.9	105.4	149.6	20.3	13.9	14.4
1982/83	14.4	155.6	107.8	152.9	17.0	13.1	17.9
1983/84	17.9	153.6	115.4	160.4	20.2	16.4	12.9
1984/85	12.9	162.5	115.8	157.7	22.9	17.9	19.1
1985/86	19.1	165.1	120.2	161.9	22.0	18.2	22.6
1986/87	22.6	169.1	124.7	167.8	23.9	18.4	26.7
1987/88	26.7	169.8	127.2	173.7	19.8	15.7	25.2
1988/89	25.2	162.5	118.6	162.7	20.0	16.6	26.5
1989/90	26.5	161.0	120.1	165.1	20.0	15.4	24.0
1990/91 3/	24.0	177.0	128.3	176.0	21.4	17.3	26.4
1991/92 4/	26.4	163.8	121.8	165.9	21.5	18.4	25.9
Total coarse grains: 5/							
1980/81	77.4	534.1	342.0	600.0	110.3	108.1	81.5
1981/82	81.5	520.3	351.7	588.3	114.5	97.5	72.8
1982/83	72.8	533.6	356.9	585.5	104.0	89.5	73.2
1983/84	73.2	551.1	364.5	608.9	100.2	92.8	70.8
1984/85	70.8	578.1	377.3	618.5	111.1	99.7	85.9
1985/86	85.9	568.3	386.8	608.3	95.7	82.3	81.2
1986/87	81.2	579.8	393.9	624.8	95.1	83.0	81.4
1987/88	81.4	577.8	398.3	630.8	94.0	81.8	79.5
1988/89	79.5	583.5	403.1	639.9	106.3	92.7	83.1
1989/90	83.1	578.6	412.8	651.4	112.0	98.7	78.8
1990/91 3/	78.8	596.7	401.5	644.1	92.2	83.7	81.1
1991/92 4/	81.1	581.6	393.7	632.3	89.9	81.8	77.6

1/ Aggregated on basis of local marketing years, except for adjusted imports. 2/ Based on Oct./Sept. trade year and excludes intra-EC trade. 3/ Forecast. 4/ Projected. 5/ Includes oats, rye, millet, and mixed grains.

Source: Compiled from World Grain Situation and Outlook, Foreign Agricultural Service, and USDA data.

Appendix table 3--Corn: Marketing year supply and disappearance, area,

Year beginning September 1	Supply				Food, alcohol, industrial
	Begin- ning stocks	Produc- tion	Imports	Total	
1984/85	1,006.3	7,672.1	1.7	8,680.1	1,070.0
1985/86	1,648.2	8,875.5	10.0	10,533.7	1,140.0
1986/87	4,039.5	8,225.8	1.7	12,267.0	1,175.0
1987/88	4,881.7	7,131.3	3.4	12,016.4	1,212.0
1988/89	4,259.1	4,928.7	2.8	9,190.5	1,232.4
1989/90	1,930.4	7,525.5	1.9	9,457.8	1,271.0
1990/91 2/	1,344.5	7,933.1	2.8	9,280.3	1,305.7
1991/92 3/	1,530.3	7,417.5	2.2	8,950.0	--1,350

	Area			Yield per harvested acre	Re- farm
	Set-aside and diverted	Planted			
		Million acres			
1984/85	3.9	80.5	71.9	106.7	7
1985/86	5.4	83.4	75.2	118.0	7
1986/87	14.3	76.6	68.9	119.4	7
1987/88	23.1	66.2	59.5	119.8	7
1988/89	20.5	67.7	58.3	84.6	7
1989/90	10.8	72.2	64.7	116.3	7
1990/91	10.7	74.2	67.0	118.5	7
1991/92	7.2	75.9	68.8	107.8	2.3

1/ Includes quantity under loan and farmer-owned reserve. 2/ Preliminary.
 5/ Deficiency payments. 6/ Deficiency and diversion payments. 7/ Deficit.

area, and prices, 1984/85-1991/92

	Disappearance				Ending stocks Aug. 31			
	Domestic use		Exports	Total disappearance	Govt. owned 1/	Privately owned 1/	Total	
	Food, l, and trial	Seed and residual						
Million bushels								
.0	21.2	4,090.5	5,181.7	1,850.2	7,031.9	224.9	1,423.3	1,648.2
.0	19.5	4,107.4	5,266.9	1,227.3	6,494.2	545.7	3,493.8	4,039.5
.0	16.7	4,701.2	5,892.9	1,492.4	7,385.3	1,443.2	3,438.5	4,881.7
.0	17.2	4,811.7	6,040.9	1,716.4	7,757.3	835.0	3,424.1	4,259.1
.4	18.4	3,980.9	5,231.7	2,028.5	7,260.1	362.5	1,567.9	1,930.4
.0	18.9	4,454.7	5,744.6	2,368.8	8,113.4	233.0	1,111.5	1,344.5
.7	19.3	4,700.0	6,025.0	1,725.0	7,750.0	365.0	1,165.3	1,530.3
1,350.0--	4,725.0	6,075.0	1,650.0	7,725.0			1,225.0	

Received by farmers 4/	Average prices			Government-support program		
	St. Louis No. 2 yellow	Omaha No. 2 yellow	Gulf Ports No. 2 yellow	National average loan rate	Target price	Total payments to participants
	\$/bu.			\$ million		
2.63	2.81	2.65	3.00	2.55	3.03	5/ 1,654
2.23	2.37	2.25	2.52	2.55	3.03	5/ 2,479
1.50	1.68	1.53	1.83	1.92	3.03	6/ 6,327
1.94	2.19	1.98	2.39	1.82	3.03	6/ 7,388
2.54	2.72	2.49	2.93	1.77	2.93	7/ 3,687
2.36	2.59	2.41	2.84	1.65	2.84	7/ 3,508
2.30	2.46	2.28	2.66	1.57	2.75	7/ 3,015
2.30-2.70				1.62	2.75	

Preliminary. 3/ Projected. 4/ Excludes support payments.
Deficiency, diversion, and disaster payments.

Appendix table 4--Sorghum: Marketing year supply and disappearance, area

Year beginning September 1	Supply				Food, alcohol, and industrial
	Begin- ning stocks	Produc- tion	Imports	Total	
1984/85	287.4	866.2	0.1	1,153.7	15.3
1985/86	300.2	1,120.3	---	1,420.5	26.0
1986/87	551.0	938.9	---	1,489.9	10.4
1987/88	743.3	730.8	---	1,474.1	23.5
1988/89	662.7	576.7	---	1,239.3	20.5
1989/90	439.5	615.4	0.2	1,055.1	13.6
1990/91 2/	219.8	571.5	0.1	791.3	12.7
1991/92 3/	157.2	564.5	---	721.7	---
Area					
Set-aside and diverted	Planted	Harvested for grain	Yield per harvested acre	Rec- farm	---
Million acres				Bushels	-
1984/85	0.6	17.3	15.4	56.4	4
1985/86	0.9	18.3	16.8	66.8	3
1986/87	2.7	15.3	13.9	67.7	2
1987/88	4.4	11.8	10.5	69.4	3
1988/89	3.9	10.3	9.0	63.8	4
1989/90	3.3	12.6	11.1	55.4	3
1990/91	3.3	10.5	9.1	62.9	3
1991/92	2.3	11.0	9.7	57.9	3.84

--- = Not applicable.

1/ Includes quantity under loan and farmer-owned reserve. 2/ Preliminary.

5/ Deficiency payments. 6/ Deficiency and diversion payments. 7/ Deficit.

area, and prices, 1984/85-1991/92

Food, seed and residual	Disappearance			Ending stocks Aug. 31		
	Domestic use	Exports	Total disappearance	Govt. owned	Privately owned 1/	Total
	Seed and residual	Total				
Million bushels						
3	2.0	539.3	556.6	296.9	853.5	112.1
0	1.7	663.8	691.5	178.0	869.5	207.2
4	1.6	536.2	548.2	198.3	746.5	408.9
5	1.3	555.1	579.9	231.6	811.5	463.6
5	1.5	467.6	489.6	310.2	799.8	340.9
6	1.1	517.2	531.9	303.5	835.4	162.5
7	1.3	400.1	414.1	220.0	634.1	70.0
--15.0---	400.0	415.0	190.0	605.0		116.7
Average prices						
Received by farmers 4/ 4/	Kansas City No. 2 yellow	Texas No. 2 yellow	Gulf Ports No. 2 yellow	National average loan rate	Target price	Total payments to participants
				\$/cwt.		\$ million
4.14	4.46	5.04	4.90	4.32	5.14	5/ 158
3.45	3.72	4.32	4.07	4.32	5.14	5/ 227
2.45	2.73	3.24	3.22	3.25	5.14	6/ 570
3.04	3.40	3.81	3.96	3.11	5.14	6/ 709
4.05	4.17	4.66	4.81	3.00	4.96	7/ 349
3.75	4.21	4.38	4.76	2.80	4.82	7/ 391
3.75	4.07	4.48	4.65	2.66	4.66	7/ 320
3.84-4.55				2.75	4.66	

liminary. 3/ Projected. 4/ Excludes support payments.
Deficiency, diversion and disaster payments.

Appendix table 5--Barley: Marketing year supply and disappearance, area

Year beginning June 1	Supply				Food, alcohol, and industrial
	Begin- ning stocks	Produc- tion	Imports	Total	
1984/85	189.4	598.0	7.5	794.9	149.0
1985/86	247.4	590.2	6.2	843.8	147.2
1986/87	327.2	608.5	6.6	942.3	156.1
1987/88	336.3	521.5	11.3	869.1	158.3
1988/89	321.1	290.0	10.5	621.6	164.7
1989/90	196.4	404.2	13.1	613.7	165.4
1990/91 2/	160.8	418.9	14.9	594.5	169.7
1991/92 3/	135.8	470.0	15.0	620.8	---175

	Area			Yield per harvested acre	Rec- farm		
	Set-aside and diverted	Planted					
			Harvested for grain				
	---Million acres---			Bushels			
1984/85	0.5	12.0	11.2	53.4	2		
1985/86	0.7	13.2	11.6	51.0	1		
1986/87	2.0	13.1	12.0	50.8	1		
1987/88	2.9	11.0	10.0	52.4	1		
1988/89	2.8	9.8	7.6	38.0	2		
1989/90	2.3	9.1	8.3	48.6	2		
1990/91	2.9	8.2	7.5	55.9	2		
1991/92	2.0	8.9	8.4	55.8	1.90		

1/ Includes quantity under loan and farmer-owned reserve. 2/ Preliminary, March 1987, shifted to Duluth. 6/ Deficiency payments. 7/ Deficiency

area, and prices, 1984/85-1991/92

Food, seed, and residual	Disappearance			Ending stocks May 31			Total	
	Domestic use		Exports	Total disappearance	Govt. owned	Privately owned 1/		
	Seed	Feed and residual				Total		
Million bushels								
0	21.4	305.5	475.9	71.6	547.5	15.6	231.8	247.4
.2	21.3	328.3	496.8	19.8	516.6	57.4	269.8	327.2
.1	17.9	298.4	472.4	133.6	606.0	75.5	260.8	336.3
.3	15.7	253.1	427.1	120.9	548.0	50.1	271.0	321.1
.7	15.0	166.2	345.9	79.3	425.2	30.4	166.0	196.4
.4	13.4	189.6	368.4	84.5	452.9	19.3	141.5	160.8
.7	14.6	194.5	378.8	79.9	458.7	8.4	127.4	135.8
--175.0---	215.0	390.0	85.0	475.0			145.8	

Received by farmers 4/	Average prices--- Minneapolis---			Government-support program			\$ million
	No. 2 or better feed 5/	No. 3 or better malting	Portland No. 2	National average loan rate	Target price	Total payments to participants	
	\$/bu.						
2.29	2.09	2.55	2.59	2.08	2.60	6/ 50	
1.98	1.53	2.24	2.23	2.08	2.60	6/ 159	
1.61	1.44	1.89	1.96	1.56	2.60	7/ 351	
1.81	1.78	2.04	2.09	1.49	2.60	7/ 337	
2.80	2.32	4.11	2.74	1.44	2.51	8/ 164	
2.42	2.20	3.20	2.64	1.34	2.43	8/ 71	
2.14	2.13	2.42	2.65	1.28	2.36	8/ 59	
1.90-2.30				1.32	2.36		

Liminary. 3/ Projected. 4/ Excludes support payments. 5/ Starting
ency and diversion payments. 8/ Deficiency, diversion and disaster payments.

Appendix table 6--Oats: Marketing year supply and disappearance, area, and

Year beginning June 1	Begin- ning stocks	Produc- tion	Imports	Supply		Food, alcohol, and industrial
				Total		
1984/85	180.9	473.7	33.6	688.2	41.0	
1985/86	179.9	518.5	27.2	725.7	44.0	
1986/87	183.7	385.0	32.4	601.1	45.0	
1987/88	132.7	373.7	45.7	552.1	49.8	
1988/89	112.0	217.6	62.9	392.5	72.7	
1989/90	98.3	373.6	65.8	537.7	91.6	
1990/91 2/	156.9	357.1	71.0	585.1	100.4	
1991/92 3/	171.2	259.7	65.0	495.8	---	125.0

	Set-aside and diverted	Area		Yield per harvested acre	Receiv- able by farmer		
		Planted	Harvested for grain				
		-Million acres-					
				Bushels			
1984/85	0.1	12.4	8.2	58.0	1.6		
1985/86	0.1	13.3	8.2	63.7	1.2		
1986/87	0.5	14.7	6.9	56.3	1.1		
1987/88	0.8	17.9	6.9	54.3	1.5		
1988/89	0.3	13.9	5.5	39.3	2.0		
1989/90	0.3	12.1	6.9	54.4	1.4		
1990/91	0.2	10.4	5.9	60.1	1.1		
1991/92	0.5	8.6	5.0	52.2	1.10---		

1/ Includes quantity under loan and farmer-owned reserve. 2/ Preliminary.

6/ Deficiency and diversion payments. 7/ Deficiency, diversion and disas-

a, and prices, 1984/85-1991/92

Crop and year	Disappearance				Ending stocks May 31		
	Domestic use	Feed and residual	Total	Exports	Total disappearance	Govt. owned	Privately owned 1/
Million bushels							
31.2	435.6	507.8	0.5	508.3	1.4	178.5	179.9
32.5	464.2	540.7	1.2	541.9	1.9	181.8	183.7
38.0	384.5	467.5	0.9	468.4	3.5	129.2	132.7
31.6	358.2	439.6	0.5	440.1	3.5	108.5	112.0
27.1	193.8	293.6	0.6	294.2	2.4	95.9	98.3
23.0	265.4	380.0	0.8	380.8	0.7	156.2	156.9
19.1	293.8	413.3	0.6	413.9	0.4	170.8	171.2
-125.0---	260.0	385.0	1.0	386.0			109.8

Received by armers 4/	Average prices			Government-support program		
	Minneapolis No. 2 white, heavy	Portland No. 2 white, heavy	Toledo No. 2	National average loan rate	Target price	Total payments to participants
\$/bu.						
1.67	1.81	2.12	1.92	1.31	1.60	NA
1.23	1.31	1.60	1.08	1.31	1.60	5/ 8
1.21	1.46	1.53	1.20	0.99	1.60	6/ 32
1.56	1.92	1.76	1.68	0.94	1.60	6/ 27
2.61	2.80	2.24	2.26	0.90	1.55	7/ 47
1.49	1.64	1.63	1.40	0.85	1.50	7/ 3
1.14	1.30	1.58	1.17	0.81	1.45	6/ 9
1.10-1.40				0.83	1.45	

inary. 3/ Projected. 4/ Excludes support payments. 5/ Deficiency payments.
disaster payments.

Appendix table 7--Corn: Marketing year supply and disappearance, specific

Year beginning September 1	Supply				Food, alcohol, and industrial
	Begin- ning stocks	Produc- tion	Imports	Total	
1985/86:					
Sept.-Nov.	1,648.2	8,875.5	0.9	10,524.6	278.0
Dec.-Feb.	8,614.7	---	1.0	8,615.7	264.0
Mar.-May	6,587.1	---	2.2	6,589.3	293.0
June-Aug.	4,990.0	---	5.9	4,995.9	305.0
Mkt. year	1,648.2	8,875.5	10.0	10,533.7	1,140.0
1986/87:					
Sept.-Nov.	4,039.5	8,225.8	0.7	12,266.0	280.0
Dec.-Feb.	10,305.5	---	0.2	10,305.7	270.0
Mar.-May	8,248.2	---	0.4	8,248.6	310.0
June-Aug.	6,332.2	---	0.4	6,332.6	315.0
Mkt. year	4,039.5	8,225.8	1.7	12,267.0	1,175.0
1987/88:					
Sept.-Nov.	4,381.7	7,131.3	0.5	12,013.5	292.0
Dec.-Feb.	9,771.0	---	0.7	9,771.7	282.0
Mar.-May	7,635.6	---	1.4	7,637.0	315.0
June-Aug.	5,839.2	---	0.8	5,840.0	323.0
Mkt. year	4,381.7	7,131.3	3.4	12,016.4	1,212.0
1988/89:					
Sept.-Nov.	4,259.1	4,928.7	0.6	9,188.4	295.0
Dec.-Feb.	7,071.6	---	0.6	7,072.2	285.0
Mar.-May	5,203.9	---	1.2	5,205.1	322.2
June-Aug.	3,419.3	---	0.4	3,419.7	330.2
Mkt. year	4,259.1	4,928.7	2.8	9,190.6	1,232.4
1989/90:					
Sept.-Nov.	1,930.4	7,525.5	0.6	9,456.6	281.0
Dec.-Feb.	7,082.1	---	0.4	7,082.5	291.0
Mar.-May	4,812.4	---	0.6	4,813.0	348.0
June-Aug.	2,843.2	---	0.2	2,843.4	351.0
Mkt. year	1,930.4	7,525.5	1.9	9,457.8	1,271.0
1990/91:					
Sept.-Nov.	1,344.5	7,933.1	0.9	9,278.4	307.0
Dec.-Feb.	6,940.3	---	0.3	6,940.6	305.0
Mar.-May	4,789.0	---	1.3	4,790.2	345.8
June-Aug.	2,991.9	---	0.3	2,992.2	347.9
Mkt. year 2/	1,344.5	7,933.1	2.8	9,280.3	1,305.7
1991/92:					
Mkt. year 3/	1,530.3	7,417.5	2.2	8,950.0	---1,350

--- = Not applicable.

1/ Includes quantity under loan and farmer-owned reserve. 2/ Prelim

specified periods, 1985/86-1991/92

Period d, and cial	Seed	Disappearance			Ending stocks		
		Feed and residual	Total	Exports	Total disap- pearance	Govt. owned	Privately owned 1/
Million bushels							
0	0.0	1,217.1	1,495.1	414.8	1,909.9	388.6	8,226.1
0	0.0	1,304.4	1,568.4	460.2	2,028.6	509.4	6,077.7
0	16.1	1,088.4	1,397.9	201.4	1,599.3	550.9	4,439.1
0	3.4	497.1	805.5	150.9	956.4	545.7	3,493.8
0	19.5	4,107.4	5,266.9	1,227.3	6,494.2	545.7	3,493.8
0	0.0	1,362.3	1,662.3	318.2	1,960.5	968.2	9,337.3
0	0.0	1,474.7	1,744.7	312.8	2,057.5	1,362.2	6,886.0
0	16.4	1,093.9	1,420.3	496.1	1,916.4	1,491.5	4,840.7
0	0.3	770.3	1,085.6	365.3	1,450.9	1,443.2	3,438.5
0	16.7	4,701.2	5,892.9	1,492.4	7,385.3	1,443.2	3,438.5
0	0.0	1,554.9	1,846.9	395.6	2,242.5	1,683.4	8,087.6
0	0.0	1,449.4	1,731.4	404.7	2,136.1	1,767.7	5,867.9
0	16.7	956.4	1,288.1	509.7	1,797.8	1,304.9	4,534.3
0	0.5	851.0	1,174.5	406.4	1,580.9	835.0	3,424.1
0	17.2	4,811.7	6,040.9	1,716.4	7,757.3	835.0	3,424.1
0	0.0	1,351.0	1,646.0	470.8	2,116.8	611.0	6,460.6
0	0.0	1,080.7	1,365.7	502.6	1,868.3	465.0	4,738.9
2	16.7	855.3	1,194.2	591.6	1,785.8	417.7	3,001.6
2	1.7	693.9	1,025.8	463.4	1,489.2	362.5	1,567.9
4	18.4	3,980.9	5,231.7	2,028.5	7,260.1	362.5	1,567.9
0	0.0	1,510.4	1,791.4	583.1	2,374.5	628.2	6,453.9
0	0.0	1,297.4	1,588.4	681.8	2,270.1	537.2	4,275.2
0	16.1	1,004.4	1,368.5	601.3	1,969.8	299.3	2,543.9
0	2.8	642.5	996.3	502.6	1,498.9	233.0	1,111.5
0	18.9	4,454.7	5,744.6	2,368.8	8,113.4	233.0	1,111.5
0	0.0	1,648.3	1,955.3	382.8	2,338.1	205.9	6,734.4
0	0.0	1,375.9	1,680.9	470.7	2,151.6	195.6	4,593.4
8	17.6	981.2	1,344.6	453.7	1,798.3	435.9	2,556.0
9	1.7	694.6	1,044.2	417.8	1,462.0	365.0	1,165.2
7	19.3	4,700.0	6,025.0	1,725.0	7,750.0	365.0	1,165.3
1,350.0---		4,725.0	6,075.0	1,650.0	7,725.0		1,225.0

Preliminary. 3/ Projected.

Appendix table 8--Sorghum: Marketing year supply and disappearance,

Year beginning September 1	Begin- ning stocks	Produc- tion	Supply		Food, alcohol, and industria-
			Imports	Total	
1985/86:					
Sept.-Nov.	300.2	1,120.3	0.0	1,420.5	7.6
Dec.-Feb.	1,112.2	---	0.0	1,112.2	7.9
Mar.-May	828.4	---	0.0	828.4	6.6
June-Aug.	630.0	---	0.0	630.0	3.9
Mkt. year	300.2	1,120.3	0.0	1,420.5	26.0
1986/87:					
Sept.-Nov.	551.0	938.9	0.0	1,489.9	2.8
Dec.-Feb.	1,259.2	---	0.0	1,259.2	2.9
Mar.-May	1,017.7	---	0.0	1,017.7	2.4
June-Aug.	835.0	---	0.0	835.0	2.2
Mkt. year	551.0	938.9	0.0	1,489.9	10.4
1987/88:					
Sept.-Nov.	743.3	730.8	0.0	1,474.1	4.9
Dec.-Feb.	1,252.4	---	0.0	1,252.4	5.1
Mar.-May	1,011.1	---	0.0	1,011.1	4.2
June-Aug.	807.8	---	0.0	807.9	9.3
Mkt. year	743.3	730.8	0.0	1,474.1	23.5
1988/89:					
Sept.-Nov.	662.7	576.7	0.0	1,239.3	5.9
Dec.-Feb.	997.7	---	0.0	997.7	6.1
Mar.-May	725.1	---	0.0	725.1	5.0
June-Aug.	559.0	---	0.0	559.0	3.5
Mkt. year	662.7	576.7	0.0	1,239.3	20.5
1989/90:					
Sept.-Nov.	439.5	615.4	0.0	1,054.9	3.6
Dec.-Feb.	775.2	---	0.0	775.2	4.4
Mar.-May	513.6	---	0.1	513.7	2.5
June-Aug.	335.0	---	0.1	335.1	3.1
Mkt. year	439.5	615.4	0.2	1,055.1	13.6
1990/91:					
Sept.-Nov.	219.8	571.5	0.0	791.2	3.7
Dec.-Feb.	512.3	---	0.0	512.3	3.5
Mar.-May	332.9	---	0.1	333.0	2.5
June-Aug.	220.1	---	0.0	220.1	3.0
Mkt. year 2/	219.8	571.5	0.1	791.3	12.7
1991/92:					
Mkt. year 3/	157.2	564.5	0.0	721.7	---

--- = Not applicable.

1/ Includes quantity under loan and farmer-owned reserve. 2/ Preliminary.

ance, specified periods, 1985/86-1991/92

Food, oil, and industrial	Disappearance				Ending stocks			
	Domestic use	Feed and residual	Total	Exports	Total disappearance	Govt. owned	Privately owned 1/	Total
Million bushels								
7.6	0.0	230.4	238.0	70.2	308.2	138.6	973.6	1,112.2
7.9	0.0	232.8	240.7	43.1	283.9	175.2	653.2	828.4
6.6	1.2	163.7	171.4	26.9	198.3	181.4	448.6	630.0
3.9	0.5	36.9	41.3	37.7	79.0	207.2	343.8	551.0
6.0	1.7	663.8	691.5	178.0	869.5	207.2	343.8	551.0
2.8	0.0	180.4	183.3	47.5	230.7	292.1	967.1	1,259.2
2.9	0.0	182.3	185.3	56.2	241.5	364.9	652.8	1,017.7
2.4	1.0	128.2	131.6	51.2	182.8	400.4	434.6	835.0
2.2	0.6	45.3	48.1	43.5	91.6	408.9	334.4	743.3
0.4	1.6	536.2	548.2	198.3	746.5	408.9	334.4	743.3
4.9	0.0	171.3	176.2	45.5	221.7	465.3	787.1	1,252.4
5.1	0.0	173.1	178.2	63.1	241.3	545.5	465.6	1,011.1
4.2	0.8	121.2	126.2	77.1	203.3	511.4	296.4	807.8
9.3	0.5	89.6	99.4	45.8	145.2	463.6	199.1	662.7
3.5	1.3	555.1	579.9	231.6	811.5	463.6	199.1	662.7
5.9	0.0	171.3	177.1	64.5	241.6	432.9	564.8	997.7
6.1	0.0	173.1	179.2	93.5	272.7	396.4	328.7	725.1
5.0	0.8	80.1	86.0	80.1	166.1	363.8	195.2	559.0
3.5	0.7	43.1	47.4	72.1	119.5	340.9	98.6	439.5
0.5	1.5	467.6	489.6	310.2	799.8	340.9	98.6	439.5
3.6	0.0	185.8	189.4	90.3	279.7	314.6	460.6	775.2
4.4	0.0	176.0	180.4	81.2	261.6	223.0	290.6	513.6
2.5	0.6	94.4	97.5	81.3	178.7	190.2	144.8	335.0
3.1	0.5	61.0	64.6	50.8	115.3	162.5	57.3	219.8
3.6	1.1	517.2	531.9	303.5	835.4	162.5	57.3	219.8
3.7	0.0	218.7	222.4	56.6	279.0	157.7	354.6	512.3
3.5	0.0	114.7	118.2	61.2	179.4	149.6	183.3	332.9
2.5	0.7	32.8	36.0	76.8	112.8	108.4	111.7	220.1
5.0	0.6	35.9	37.5	25.4	62.9	75.0	82.2	157.2
2.7	1.3	400.1	414.1	220.0	634.1	70.0	87.2	157.2
---15.0---		400.0	415.0	190.0	605.0			116.7

1 Preliminary. 3/ Projected.

Appendix table 9--Barley: Marketing year supply and disappearance, specific

Year beginning June 1	Supply				Food, alcohol, and industrial	Do Milli
	Begin- ning stocks	Produc- tion	Imports	Total		
1985/86:						
June-Aug.	247.4	590.2	0.7	838.3	39.1	
Sept.-Nov.	698.3	---	1.3	699.6	33.7	
Dec.-Feb.	572.1	---	2.5	574.6	33.7	
Mar.-May	464.7	---	1.7	466.4	40.7	1
Mkt. year	247.4	590.2	6.2	843.8	147.2	2
1986/87:						
June-Aug.	327.2	608.5	1.3	937.0	42.2	
Sept.-Nov.	786.8	---	1.0	787.8	36.5	
Dec.-Feb.	634.3	---	1.2	635.5	35.8	
Mar.-May	499.3	---	3.1	502.4	41.6	1
Mkt. year	327.2	608.5	6.6	942.3	156.1	1
1987/88:						
June-Aug.	336.3	521.5	1.1	858.9	42.8	
Sept.-Nov.	725.0	---	2.9	727.9	37.1	
Dec.-Feb.	582.4	---	4.3	586.7	36.3	
Mar.-May	458.5	---	3.0	461.5	42.1	1
Mkt. year	336.3	521.5	11.3	869.1	158.3	1
1988/89:						
June-Aug.	321.1	290.0	2.8	613.9	45.2	
Sept.-Nov.	450.4	---	2.2	452.6	39.4	
Dec.-Feb.	372.1	---	2.8	374.9	37.2	
Mar.-May	280.6	---	2.7	283.3	42.9	1
Mkt. year	321.1	290.0	10.5	621.6	164.7	1
1989/90:						
June-Aug.	196.4	404.2	3.6	604.2	46.7	
Sept.-Nov.	417.9	---	2.0	419.9	40.1	
Dec.-Feb.	350.6	---	3.3	353.9	38.0	
Mar.-May	252.7	---	4.2	256.9	40.6	
Mkt. year	196.4	404.2	13.1	613.7	165.4	
1990/91:						
June-Aug.	160.8	418.9	1.0	580.7	47.0	
Sept.-Nov.	410.9	---	1.3	412.1	41.0	
Dec.-Feb.	305.7	---	4.2	309.9	39.5	
Mar.-May	210.9	---	8.4	219.3	42.2	
Mkt. year 2/	160.8	418.9	14.9	594.5	169.7	
1991/92:						
Mkt. year 3/	135.8	470.0	15.0	620.8	-----	175.0-----

--- = Not applicable.

1/ Includes quantity under loan and farmer-owned reserve. 2/ Preliminary.

pecified periods, 1985/86-1991/92

		Disappearance			Ending stocks		
---Domestic use---		Total	Exports	Total disappearance	Govt. owned	Privately owned 1/	Total
Seed	Feed and residual						
Million bushels							
0.0	90.5	129.6	10.4	140.0	20.0	678.3	698.3
1.5	85.0	120.2	7.3	127.5	36.1	536.0	572.1
1.7	73.2	108.6	1.3	109.9	47.3	417.4	464.7
18.1	79.6	138.4	0.8	139.2	57.4	269.8	327.2
21.3	328.3	496.8	19.8	516.6	57.4	269.8	327.2
0.0	94.5	136.7	13.5	150.2	56.0	730.8	786.8
1.3	72.2	110.0	43.5	153.5	66.2	568.1	634.3
1.4	67.2	104.4	31.8	136.2	75.2	424.1	499.3
15.2	64.5	121.3	44.8	166.1	75.5	260.8	336.3
17.9	298.4	472.4	133.6	606.0	75.5	260.8	336.3
0.0	74.3	117.1	16.8	133.9	74.9	650.1	725.0
1.1	64.8	103.0	42.5	145.5	79.5	502.9	582.4
1.3	57.6	95.2	33.0	128.2	57.0	401.5	458.5
13.3	56.4	111.8	28.6	140.4	50.1	271.0	321.1
15.7	253.1	427.1	120.9	548.0	50.1	271.0	321.1
0.0	92.5	137.7	25.8	163.5	35.9	414.5	450.4
1.1	27.4	67.9	12.6	80.5	35.9	336.2	372.1
1.2	40.6	79.0	15.3	94.3	34.1	246.5	280.6
12.7	5.7	61.3	25.6	86.9	30.4	166.0	196.4
15.0	166.2	345.9	79.3	425.2	30.4	166.0	196.4
0.0	113.0	159.7	26.5	186.2	36.6	381.3	417.9
1.0	11.0	52.1	17.2	69.3	36.3	314.3	350.6
1.1	39.3	78.4	22.8	101.2	32.1	220.6	252.7
11.3	26.3	78.2	17.9	96.1	19.0	141.8	160.8
13.4	189.6	368.4	84.5	452.9	19.3	141.5	160.8
0.0	92.0	139.0	30.9	169.8	12.8	398.1	410.9
1.0	39.0	81.0	25.4	106.4	12.1	293.6	305.7
1.1	39.8	80.4	18.6	99.0	9.6	201.3	210.9
12.5	23.7	78.4	5.0	83.4	8.4	127.4	135.8
14.6	194.5	378.8	79.9	458.7	8.4	127.4	135.8
6.0----	215.0	390.0	85.0	475.0			145.8

iminary. 3/ Projected.

Appendix table 10--Oats: Marketing year supply and disappearance, 1985/86-1991/92

Year beginning June 1	Supply				Total	Food, alcohol, and industrial	Dom- estic seeds
	Begin- ning stocks	Produc- tion	Imports	Mil			
1985/86:							
June-Aug.	179.9	518.5	4.4	702.9	12.8	0.0	
Sept.-Nov.	554.1	---	4.2	558.3	11.2	3.9	
Dec.-Feb.	424.8	---	8.9	433.7	10.9	1.0	
Mar.-May	312.5	---	9.7	322.2	9.0	27.6	
Mkt. year	179.9	518.5	27.2	725.7	44.0	32.5	
1986/87:							
June-Aug.	183.7	385.0	8.7	577.4	13.1	0.0	
Sept.-Nov.	451.6	---	4.8	456.4	11.5	4.6	
Dec.-Feb.	342.2	---	9.2	351.4	11.1	1.1	
Mar.-May	248.5	---	9.6	258.2	9.3	32.3	
Mkt. year	183.7	385.0	32.4	601.1	45.0	38.0	
1987/88:							
June-Aug.	132.7	373.7	7.0	513.4	14.5	0.0	
Sept.-Nov.	393.9	---	8.1	402.0	12.7	3.8	
Dec.-Feb.	294.2	---	15.8	310.0	12.3	0.1	
Mar.-May	212.2	---	14.8	227.1	10.2	26.9	
Mkt. year	132.7	373.7	45.7	552.1	49.8	31.0	
1988/89:							
June-Aug.	112.0	217.6	12.3	341.8	21.2	0.0	
Sept.-Nov.	263.8	---	11.9	275.7	18.6	3.5	
Dec.-Feb.	204.4	---	20.1	224.5	18.0	0.1	
Mar.-May	159.9	---	18.6	178.5	15.0	23.0	
Mkt. year	112.0	217.6	62.9	392.5	72.7	27.1	
1989/90:							
June-Aug.	98.3	373.6	17.0	488.9	26.6	0.1	
Sept.-Nov.	373.3	---	17.5	390.8	23.3	2.1	
Dec.-Feb.	287.3	---	15.7	303.0	22.6	0.1	
Mar.-May	214.7	---	15.7	230.4	19.1	19.1	
Mkt. year	98.3	373.6	65.8	537.7	91.6	23.1	
1990/91:							
June-Aug.	156.9	357.1	17.5	531.6	28.7	0.1	
Sept.-Nov.	351.7	---	11.7	363.4	24.7	2.1	
Dec.-Feb.	294.1	---	18.2	312.3	24.6	0.1	
Mar.-May	229.3	---	23.6	252.8	22.4	15.1	
Mkt. year 1/	156.9	357.1	71.0	585.1	100.4	19.1	
1991/92:							
Mkt. year 2/	171.2	259.7	65.0	495.8	--125.0--		

--- = Not applicable.

1/ Preliminary. 2/ Projected.

86-1991/92

Disappearance			Ending stocks				
Domestic use		Total	Exports	Total disappearance	Govt. owned	Privately owned	Total
Seed	Feed and residual	Total					
Million bushels							
0.0	135.8	148.7	0.1	148.8	1.5	552.6	554.1
3.9	118.1	133.2	0.3	133.5	1.9	422.9	424.8
1.0	109.3	121.2	0.1	121.2	2.0	310.5	312.5
27.6	101.0	137.7	0.8	138.4	1.9	181.8	183.7
32.5	464.2	540.7	1.2	541.9	1.9	181.8	183.7
0.0	112.5	125.6	0.2	125.9	2.4	449.2	451.6
4.6	97.8	113.9	0.3	114.2	3.2	339.0	342.2
1.1	90.5	102.8	0.1	102.9	3.6	244.9	248.5
32.3	83.7	125.2	0.3	125.5	3.5	129.2	132.7
38.0	384.5	467.5	0.9	468.4	3.5	129.2	132.7
0.0	104.8	119.3	0.2	119.5	3.3	390.6	393.9
3.8	91.1	107.6	0.1	107.8	3.4	290.8	294.2
0.9	84.3	97.6	0.1	97.7	3.4	208.8	212.2
26.9	77.9	115.0	0.1	115.1	3.5	108.5	112.0
31.6	358.2	439.6	0.5	440.1	3.5	108.5	112.0
0.0	56.7	77.9	0.2	78.1	3.0	260.8	263.8
3.3	49.3	71.1	0.1	71.3	2.5	201.9	204.4
0.8	45.6	64.4	0.2	64.6	2.6	157.3	159.9
23.0	42.2	80.1	0.1	80.2	2.4	95.9	98.3
27.1	193.8	293.6	0.6	294.2	2.4	95.9	98.3
0.0	88.7	115.3	0.2	115.6	1.3	372.0	373.3
2.8	77.1	103.2	0.3	103.5	1.2	286.1	287.3
0.7	64.8	88.1	0.2	88.2	1.1	213.6	214.7
19.5	34.7	73.3	0.2	73.5	0.7	156.2	156.9
23.0	265.4	380.0	0.8	380.8	0.7	156.2	156.9
0.0	151.0	179.7	0.2	179.9	0.6	351.1	351.7
2.7	41.7	69.1	0.2	69.3	0.6	293.5	294.1
0.6	57.8	83.0	0.1	83.1	0.5	228.8	229.3
15.8	43.4	81.6	0.1	81.7	0.0	171.2	171.2
19.1	293.8	413.3	0.6	413.9	0.4	170.8	171.2
--	260.0	385.0	1.0	386.0			109.8

Appendix table 11--Average prices received by farmers, United States, by month, and loan rate, 1982-91 1/

Year	Sept	Oct	Nov.	Dec	Jan.	Feb.	Mar.	Apr.	May	June	July 2/	Aug.	Average 3/	Loan rate
\$/bu.														
Corn:														
1982	2.15	1.98	2.13	2.26	2.36	2.56	2.71	2.95	3.03	3.04	3.13	3.35	2.55	2.55
1983	3.32	3.15	3.17	3.15	3.15	3.11	3.21	3.32	3.34	3.36	3.30	3.12	3.21	2.65
1984	2.90	2.65	2.55	2.56	2.64	2.62	2.67	2.70	2.68	2.64	2.60	2.44	2.63	2.55
1985	2.29	2.11	2.21	2.29	2.33	2.32	2.29	2.30	2.39	2.32	2.00	1.73	2.23	2.55
1986	1.45	1.40	1.47	1.50	1.48	1.42	1.47	1.52	1.66	1.69	1.60	1.47	1.50	1.92
1987	1.49	1.55	1.61	1.72	1.77	1.83	1.86	1.88	1.94	2.41	2.72	2.65	1.94	1.82
1988	2.60	2.58	2.51	2.53	2.60	2.59	2.60	2.56	2.58	2.52	2.47	2.27	2.54	1.77
1989	2.29	2.22	2.24	2.27	2.31	2.32	2.37	2.51	2.62	2.63	2.62	2.51	2.36	1.65
1990	2.32	2.19	2.16	2.22	2.27	2.32	2.39	2.44	2.38	2.31	2.23	2.30	1.57	
\$/cwt.														
Sorghum:														
1982	3.80	3.70	3.78	3.97	4.09	4.42	4.67	4.92	5.05	5.05	5.03	5.29	4.41	4.32
1983	5.26	5.01	4.98	4.93	4.92	4.74	4.85	5.00	5.08	4.94	4.64	4.58	4.89	4.50
1984	4.24	4.05	4.05	4.15	4.16	4.10	4.24	4.46	4.54	4.52	4.04	3.74	4.15	4.32
1985	3.27	3.30	3.47	3.76	3.69	3.55	3.67	3.80	3.99	3.43	3.06	2.66	3.45	4.32
1986	2.36	2.34	2.39	2.41	2.37	2.36	2.44	2.58	2.69	2.79	2.66	2.52	2.45	3.25
1987	2.43	2.48	2.69	2.72	2.75	2.88	2.92	2.94	2.91	4.13	4.56	4.41	3.04	3.11
1988	4.26	4.16	3.99	4.07	4.09	4.05	4.04	4.21	4.03	3.90	4.00	3.81	4.05	3.00
1989	3.80	3.61	3.68	3.54	3.58	3.53	3.69	3.89	4.07	4.29	4.44	4.14	3.75	2.80
1990	3.96	3.55	3.57	3.67	3.72	3.87	3.93	4.05	4.11	3.89	3.79	3.75	3.75	1.49
Year	June	July 2/	Aug.	Sept	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	Average 3/	Loan rate
\$/bu.														
Oats:														
1982	1.88	1.57	1.39	1.35	1.32	1.40	1.44	1.46	1.48	1.49	1.54	1.54	1.49	1.31
1983	1.51	1.46	1.45	1.55	1.62	1.67	1.73	1.81	1.88	1.81	1.82	1.84	1.62	1.36
1984	1.80	1.68	1.62	1.60	1.69	1.64	1.72	1.74	1.69	1.68	1.68	1.60	1.67	1.31
1985	1.59	1.31	1.16	1.10	1.08	1.17	1.20	1.18	1.16	1.14	1.13	1.21	1.23	1.31
1986	1.10	0.90	0.86	0.99	1.10	1.32	1.44	1.46	1.47	1.45	1.50	1.57	1.21	0.99
1987	1.52	1.29	1.40	1.49	1.61	1.62	1.76	1.79	1.84	1.78	1.82	1.84	1.56	0.94
1988	2.63	2.86	2.54	2.57	2.56	2.41	2.47	2.52	2.46	2.41	2.24	2.13	2.61	0.90
1989	1.82	1.53	1.47	1.38	1.47	1.48	1.53	1.47	1.43	1.39	1.44	1.45	1.49	0.85
1990	1.33	1.15	1.06	1.09	1.14	1.16	1.17	1.13	1.13	1.16	1.16	1.16	1.14	0.81
1991	1.08	1.11												
All barley:														
1982	2.39	2.16	2.20	2.17	1.98	2.06	2.19	2.16	2.00	2.09	2.22	2.36	2.18	2.08
1983	2.32	2.20	2.34	2.46	2.53	2.55	2.55	2.55	2.47	2.50	2.54	2.78	2.47	2.16
1984	2.61	2.54	2.26	2.25	2.29	2.25	2.19	2.24	2.21	2.18	2.16	2.22	2.29	2.08
1985	2.14	2.08	1.98	1.88	1.96	2.05	2.07	2.05	1.95	1.88	1.85	1.73	1.98	2.08
1986	1.57	1.67	1.51	1.45	1.58	1.69	1.62	1.60	1.63	1.69	1.69	1.76	1.61	1.56
1987	1.74	1.84	2.00	1.87	1.73	1.88	1.83	1.78	1.72	1.65	1.74	1.79	1.81	1.49
1988	2.45	2.97	2.96	2.94	2.86	2.96	2.73	2.74	2.67	2.74	2.73	2.64	2.80	1.44
1989	2.34	2.16	2.70	2.47	2.41	2.47	2.47	2.33	2.33	2.19	2.22	2.36	2.42	1.34
1990	2.29	2.16	2.13	2.13	2.04	2.16	2.13	2.14	2.12	2.15	2.10	2.04	2.14	1.28
1991	1.95	1.73												
Year	June	July 2/	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May		
\$/bu.														
Feed barley:														
1982	2.52	2.23	1.98	1.91	1.87	1.94	1.98	2.07	1.99	2.08	2.26	2.43		
1983	2.52	2.31	2.23	2.41	2.45	2.51	2.52	2.58	2.47	2.54	2.55	2.86		
1984	2.72	2.80	2.10	2.13	2.19	2.19	2.20	2.22	2.27	2.19	2.16	2.30		
1985	2.26	2.05	1.75	1.74	1.85	1.90	2.03	2.00	1.90	1.83	1.85	1.81		
1986	1.61	1.44	1.21	1.33	1.49	1.62	1.59	1.56	1.61	1.69	1.71	1.84		
1987	1.79	1.67	1.54	1.57	1.66	1.68	1.63	1.65	1.64	1.59	1.73	1.76		
1988	2.07	2.34	2.37	2.39	2.34	2.30	2.27	2.28	2.28	2.29	2.35	2.32	2.27	
1989	2.18	1.96	2.06	1.98	1.97	2.08	2.10	2.02	2.01	1.99	2.08	2.28		
1990	2.26	2.04	1.77	1.85	1.91	1.95	1.89	2.01	1.93	1.95	1.95	2.00		
1991	1.90	1.77												
Malting barley:														
1982	2.26	2.10	2.38	2.58	2.22	2.26	2.39	2.32	2.00	2.09	2.13	2.18		
1983	2.05	2.06	2.50	2.69	2.72	2.61	2.50	2.47	2.46	2.54	2.54	2.53		
1984	2.52	2.48	2.50	2.52	2.52	2.39	2.18	2.29	2.11	2.17	2.17	2.10		
1985	2.02	2.13	2.49	2.33	2.24	2.32	2.19	2.13	1.99	1.93	1.85	1.66		
1986	1.52	2.07	2.23	1.85	1.83	1.78	1.65	1.70	1.69	1.69	1.65	1.66		
1987	1.68	2.04	2.55	2.39	1.88	2.07	2.01	2.15	1.80	1.69	1.75	1.81		
1988	2.80	3.26	3.38	3.47	3.41	3.34	3.27	3.32	3.22	3.22	3.16	3.04		
1989	2.62	2.68	3.04	2.87	2.89	2.91	2.88	2.73	2.61	2.45	2.51	2.53		
1990	2.35	2.37	2.47	2.42	2.29	2.34	2.44	2.23	2.35	2.39	2.36	2.10		
1991	1.88	1.66												

1/ Prices do not include an allowance for loans outstanding and government purchases. 2/ July 1991 data is preliminary. 3/ U.S. season-average prices based on monthly prices weighted by monthly marketings. 4/ Revised.

Source: Agricultural Prices, Agricultural Statistics Board, USDA

Appendix table 12--Cash prices at principal markets, 1985-91

Year	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Average
\$/bu.													
Corn, no. 2 yellow, Central Illinois:													
1985	2.28	2.10	2.32	2.36	2.36	2.33	2.29	2.31	2.42	2.41	1.93	1.52	2.22
1986	1.34	1.34	1.55	1.52	1.44	1.38	1.46	1.56	1.75	1.74	1.60	1.46	1.51
1987	1.52	1.65	1.74	1.78	1.85	1.89	1.92	1.92	1.97	2.59	2.90	2.73	2.04
1988	2.70	2.71	2.56	2.60	2.65	2.60	2.65	2.57	2.62	2.54	2.49	2.29	2.58
1989	2.33	2.26	2.30	2.29	2.30	2.37	2.42	2.64	2.73	2.77	2.68	2.54	2.47
1990	2.26	2.18	2.19	2.27	2.31	2.36	2.46	2.50	2.40	2.35	2.26		
Corn, no. 2 yellow, Gulf Ports:													
1985	2.59	2.50	2.69	2.75	2.72	2.63	2.56	2.57	2.68	2.63	2.12	1.85	2.52
1986	1.68	1.66	1.83	1.81	1.73	1.70	1.83	1.89	2.06	2.06	1.95	1.81	1.83
1987	1.86	1.99	2.08	2.11	2.20	2.23	2.29	2.28	2.29	3.05	3.22	3.02	2.39
1988	3.08	3.07	2.89	2.99	3.01	2.99	3.02	2.93	2.99	2.87	2.73	2.57	2.93
1989	2.62	2.99	2.75	2.76	2.69	2.70	2.72	3.01	3.08	3.05	2.92	2.79	2.84
1990	2.59	2.55	2.54	2.60	2.68	2.70	2.77	2.80	2.69	2.65	2.69		
Corn, no. 2 yellow, St. Louis:													
1985	2.38	2.27	2.50	2.59	2.55	2.50	2.42	2.46	2.56	2.52	2.01	1.67	2.37
1986	1.47	1.46	1.68	1.69	1.61	1.57	1.65	1.74	1.93	1.92	1.79	1.65	1.68
1987	1.65	1.78	1.91	1.97	2.05	2.07	2.09	2.10	2.13	2.77	2.96	2.81	2.19
1988	2.82	2.82	2.70	2.76	2.81	2.79	2.82	2.76	2.83	2.58	2.57	2.38	2.72
1989	2.38	2.44	2.48	2.44	2.45	2.48	2.57	2.77	2.86	2.85	2.75	2.59	2.59
1990	2.37	2.32	2.33	2.41	2.46	2.50	2.58	2.61	2.52	2.47	2.45		
Sorghum, no. 2 yellow, Gulf Ports 1/:													
1985	3.70	3.97	4.34	4.52	4.45	4.30	4.28	4.50	4.80	3.90	3.37	2.71	4.07
1986	2.95	3.15	3.26	3.15	3.05	3.09	3.35	3.30	3.51	3.50	3.30	3.04	3.22
1987	3.13	3.35	3.55	3.50	3.65	3.80	3.86	3.70	3.73	5.00	5.33	4.93	3.96
1988	4.99	4.91	4.64	4.93	4.99	4.99	5.02	4.89	5.05	4.75	4.02	4.53	4.81
1989	4.67	4.61	4.69	4.70	4.62	4.59	4.70	4.97	5.04	4.87	4.95	4.73	4.76
1990	4.48	4.43	4.43	4.60	4.76	4.82	4.97	4.94	4.64	4.45	4.54		
Sorghum, no. 2 yellow, Kansas City:													
1985	3.56	3.62	3.75	3.97	3.95	3.80	3.82	4.00	4.25	4.00	3.20	2.71	3.72
1986	2.47	2.60	2.70	2.62	2.50	2.57	2.80	2.85	3.10	3.20	2.80	2.55	2.73
1987	2.64	2.75	2.90	2.95	3.05	3.24	3.27	3.16	3.21	4.58	4.79	4.28	3.40
1988	4.27	4.17	4.00	4.23	4.24	4.26	4.32	4.17	4.29	4.15	3.96	3.92	4.17
1989	4.73	3.91	4.00	3.98	4.00	3.84	4.01	4.32	4.47	4.54	4.82	4.27	4.24
1990	3.89	3.79	3.85	3.97	4.12	4.21	4.35	4.34	4.13	4.02	4.05		
Sorghum, no. 2 yellow, Texas High Plains: 2/													
1985	4.19	4.38	4.30	4.49	4.47	4.36	4.33	4.48	4.77	4.84	3.93	3.36	4.32
1986	3.35	3.24	2.97	3.06	2.94	2.89	3.06	3.32	3.56	3.60	3.58	3.30	3.24
1987	3.19	3.27	3.27	3.39	3.40	3.53	3.56	3.54	3.55	4.84	5.25	4.96	3.81
1988	4.98	4.95	4.62	4.63	4.75	4.69	4.72	4.63	4.50	4.59	4.46	4.44	4.66
1989	4.39	4.13	4.06	4.03	4.04	4.02	4.10	4.38	4.96	4.94	4.82	4.63	4.38
1990	4.27	4.17	4.28	4.49	4.49	4.57	4.69	4.66	4.66	4.48	4.39		
Year	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	Average
\$/bu.													
Barley, no. 3 or better malting, 65% or better plump, Minneapolis:													
1985	2.46	2.25	2.03	2.15	2.10	2.27	2.29	2.28	2.20	2.34	2.40	2.07	2.24
1986	1.84	1.75	1.61	1.76	1.93	2.02	1.88	1.81	1.92	2.01	2.05	2.12	1.89
1987	2.07	1.93	1.73	1.98	2.08	2.05	2.01	2.02	2.15	2.08	2.11	2.24	2.04
1988	3.61	3.87	4.25	4.40	4.39	4.14	3.82	4.14	4.19	4.33	4.29	3.84	4.11
1989	3.02	3.33	3.57	3.43	3.48	3.18	3.19	3.20	3.02	2.83	2.97	3.17	3.20
1990	2.92	2.36	2.35	2.32	2.30	2.40	2.31	2.33	2.38	2.46	2.48	2.41	2.42
1991	2.26	2.14											
Barley, no. 2 feed, Minneapolis 3/, 4/:													
1985	1.90	1.66	1.46	1.40	1.41	1.49	1.60	1.57	NQ	NQ	NQ	1.31	1.53
1986	1.23	1.16	1.13	1.27	1.50	1.63	1.23	NQ	NQ	1.64	1.76	1.86	1.44
1987	1.73	1.59	1.60	1.76	1.78	1.82	1.74	1.72	1.77	1.88	1.94	1.98	1.78
1988	2.41	2.38	2.08	2.24	2.32	2.27	2.14	2.24	2.33	2.49	2.52	2.41	2.32
1989	2.12	2.11	2.17	2.13	2.16	2.15	2.23	2.28	2.20	2.27	2.27	2.33	2.20
1990	2.39	2.17	1.99	2.01	2.11	2.16	2.07	2.09	2.15	2.14	2.12	2.13	2.13
1991	2.02	1.89											
Oats, no. 2 heavy white, Minneapolis:													
1985	1.59	1.44	1.23	1.24	1.19	1.32	1.39	1.37	1.30	1.27	1.16	1.22	1.31
1986	1.18	1.05	1.12	1.29	1.39	1.72	1.66	1.64	1.56	1.46	1.59	1.83	1.46
1987	1.64	1.61	1.77	1.85	1.97	2.05	2.02	2.10	2.06	1.93	1.94	2.12	1.92
1988	3.26	3.25	3.09	3.07	2.99	2.71	2.74	2.87	2.59	2.49	2.30	2.22	2.80
1989	1.97	1.72	1.59	1.58	1.61	1.68	1.70	1.56	1.40	1.57	1.63	1.68	1.64
1990	1.52	1.37	1.25	1.23	1.29	1.30	1.24	1.22	1.18	1.27	1.32	1.36	1.30
1991	1.25	1.33											

NQ = No quotes.

1/ Rail delivered to Texas Gulf. 2/ Reporting point changed from Texas High Plains to South Plains starting January 1991. 3/ Prior to June 1977 reported as barley, no. 3 or better. 4/ Reporting point changed from Minneapolis #2 feed to Duluth #2 feed beginning March 1987.

Source: Grain and Feed Market News, Agricultural Marketing Service, USDA.

Appendix table 13--Feed-price ratios for livestock, poultry, and milk, by months, 1982-90

Year	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July 1/	Aug.	Average
Hog/corn, U.S. basis 2/:													
1982	28.50	28.20	24.60	23.70	23.40	21.90	18.60	15.90	15.10	14.40	13.90	13.90	20.17
1983	13.30	12.80	11.80	14.00	15.40	14.60	14.30	14.30	14.10	14.60	15.80	16.20	14.27
1984	16.00	16.50	18.40	19.00	18.20	18.40	16.30	15.30	15.40	16.90	17.60	17.40	17.12
1985	17.30	20.40	19.50	19.80	19.00	18.40	17.60	17.30	19.20	22.70	29.50	35.90	21.38
1986	40.20	37.90	35.90	33.70	31.90	33.90	32.20	33.40	32.80	35.00	37.30	39.90	35.34
1987	36.40	31.50	25.20	23.40	24.30	25.00	22.70	22.30	23.90	19.50	16.20	16.90	23.94
1988	15.70	15.00	14.40	15.70	15.70	15.60	15.10	14.40	16.10	17.90	18.60	20.10	16.19
1989	19.00	21.00	20.10	21.20	20.50	20.80	21.60	21.40	23.40	22.90	23.20	22.30	21.45
1990	23.40	25.90	23.20	21.50	22.00	22.50	21.50	21.00	23.40	23.70	24.20		
Beef-steer/corn, Omaha 3/:													
1982	27.50	27.70	25.10	25.20	24.50	23.40	22.70	21.90	21.80	21.20	19.60	18.10	23.22
1983	17.80	18.40	18.30	19.80	21.60	22.10	21.10	20.40	19.70	19.10	20.40	20.70	19.95
1984	21.30	22.40	24.60	25.60	24.80	24.10	22.20	21.50	21.50	21.00	20.40	21.70	22.59
1985	21.80	25.70	27.80	26.70	25.60	24.40	24.00	22.90	23.00	22.30	28.90	36.70	25.82
1986	42.10	42.70	39.70	38.80	40.80	43.90	41.90	42.20	40.20	38.90	41.40	43.90	41.38
1987	42.10	41.40	38.40	36.70	36.40	37.40	38.20	39.40	38.60	29.50	24.40	26.10	35.72
1988	26.40	26.40	28.40	27.90	28.10	28.70	29.40	30.20	29.30	29.10	29.60	32.00	28.79
1989	30.80	31.10	32.20	32.80	34.20	34.00	32.60	31.10	29.30	27.90	28.50	30.90	31.28
1990	34.50	36.50	37.30	36.50	35.30	34.30	34.00	32.80	32.70	32.00	31.30		
Milk/feed, U.S. basis 4/:													
1982	1.57	1.61	1.62	1.60	1.59	1.56	1.55	1.49	1.45	1.43	1.45	1.41	1.53
1983	1.36	1.39	1.36	1.34	1.33	1.33	1.34	1.32	1.32	1.32	1.35	1.40	1.35
1984	1.48	1.56	1.62	1.59	1.57	1.57	1.55	1.51	1.47	1.45	1.44	1.47	1.52
1985	1.51	1.56	1.55	1.53	1.48	1.50	1.48	1.48	1.46	1.45	1.51	1.55	1.51
1986	1.61	1.75	1.77	1.77	1.73	1.69	1.63	1.61	1.57	1.57	1.56	1.58	1.65
1987	1.64	1.65	1.65	1.63	1.51	1.47	1.43	1.40	1.37	1.36	1.15	1.19	1.45
1988	1.26	1.32	1.36	1.38	1.38	1.35	1.30	1.29	1.28	1.29	1.37	1.43	1.33
1989	1.52	1.63	1.71	1.76	1.67	1.56	1.49	1.48	1.49	1.52	1.55	1.58	1.58
1990	1.54	1.45	1.40	1.31	1.31	1.31	1.27	1.27	1.28	1.28	1.35		
Egg/feed, U.S. basis 5/:													
1982	6.00	6.30	6.30	6.00	5.70	5.80	6.10	5.80	6.00	5.80	5.70	6.10	5.97
1983	6.00	6.20	6.90	7.70	8.80	8.50	7.40	8.50	6.50	5.80	5.80	5.80	6.99
1984	5.90	5.70	6.50	6.30	5.50	5.60	6.30	5.70	5.50	5.90	5.90	6.50	5.94
1985	7.10	7.30	7.50	7.40	7.20	6.90	7.60	6.40	6.40	5.70	6.90	7.30	6.98
1986	7.30	7.00	8.00	7.80	7.30	7.10	6.60	6.60	5.90	6.00	5.70	5.60	6.74
1987	6.50	6.00	6.40	5.70	5.50	5.30	5.60	5.20	5.00	5.30	4.90	4.90	5.53
1988	5.40	5.30	5.40	5.50	6.00	5.80	7.40	6.30	5.90	6.10	6.20	6.90	6.02
1989	6.80	7.20	7.90	8.30	8.40	7.10	8.00	7.30	6.20	6.50	5.60	6.40	7.14
1990	6.70	7.40	7.30	7.70	8.00	6.80	8.10	6.70	6.10	6.10	6.90		
Broiler/feed, U.S. basis 6/:													
1982	2.60	2.50	2.50	2.50	2.60	2.70	2.40	2.30	2.40	2.60	2.80	2.80	2.56
1983	2.70	2.50	2.80	2.90	3.10	3.10	3.10	2.70	2.70	2.70	3.00	2.70	2.83
1984	2.80	2.60	2.80	2.70	2.90	2.90	2.80	2.80	3.10	3.20	3.10	3.10	2.90
1985	3.20	3.10	3.50	3.20	3.20	3.10	3.10	3.40	3.80	4.50	4.50	4.60	3.48
1986	3.80	4.40	3.90	3.40	3.60	3.50	3.30	3.20	3.30	3.00	2.90	3.30	3.47
1987	2.90	2.60	2.70	2.50	2.70	2.70	2.80	3.10	3.70	4.10	3.40	3.40	3.05
1988	3.20	2.80	2.70	2.80	2.80	2.80	3.10	3.30	3.70	3.50	3.30	3.00	3.08
1989	3.10	2.70	2.60	2.50	2.70	3.00	3.20	3.00	3.20	3.10	3.30	3.00	2.95
1990	3.10	2.70	2.70	2.70	2.90	2.80	2.90	2.90	3.00	3.00	3.20		
Turkey/feed, U.S. basis 7/:													
1982	3.80	3.90	3.90	3.00	2.90	2.90	2.90	2.70	2.90	3.00	2.80	2.80	3.13
1983	3.00	3.00	3.10	3.50	3.60	3.20	3.30	3.30	3.30	3.30	3.60	3.80	3.33
1984	3.90	4.40	5.00	5.50	4.70	3.80	3.70	3.70	3.90	4.20	4.50	4.50	4.25
1985	5.00	5.50	5.50	5.50	3.40	3.40	3.50	3.50	3.80	4.30	4.50	4.60	4.38
1986	4.70	4.90	4.80	4.00	3.30	3.40	3.40	3.50	3.40	3.30	3.10	3.00	3.73
1987	2.90	2.80	3.10	3.60	2.90	2.60	2.50	2.70	2.80	3.00	3.00	3.10	2.92
1988	3.40	3.60	3.60	2.90	2.70	3.00	3.10	3.40	3.50	3.50	3.30	3.30	3.28
1989	2.90	3.10	3.30	3.20	3.00	2.80	3.00	3.10	3.20	3.20	3.30	3.40	3.13
1990	3.40	3.30	3.60	3.10	2.90	2.90	3.20	3.10	3.30	3.40	3.50		

1/ July 1991 is preliminary. 2/ Bushels of corn equal in value to 100 pounds of hog, live weight. 3/ Based on price of choice beef-steers, 900-1100 pounds. 4/ Pounds of 16-percent mixed dairy feed equal in value to 1 pound whole milk. 5/ Pounds of laying feed equal in value to 1 dozen eggs. 6/ Pounds of broiler grower feed equal in value to 1 pound broiler, live weight. 7/ Pounds of turkey grower feed equal in value to 1 pound of turkey, live weight.

Sources: Agricultural Prices, Agricultural Statistics Board, USDA.
Livestock, Meat & Wool Market News, Agricultural Marketing Service, USDA.

Appendix table 14--Price trends, selected feeds, and corn products

Item	Unit	Sept.-Aug. 1989/90 1/	1991							
			Jan.	Feb.	Mar.	Apr.	May	June	July	
Wholesale, mostly bulk 2/:										
Soybean meal, 44% solvent, Decatur	\$/ton	177.10	155.70	163.60	165.75	171.50	171.00	171.10	169.70	
Soybean meal, high protein, Decatur	"	190.22	167.00	174.50	177.60	182.50	182.10	183.25	181.00	
Cottonseed meal, 41% solvent, Memphis	"	164.25	125.00	118.10	125.00	122.50	118.10	117.20	127.50	
Linseed meal, 34% solvent, Minneapolis	"	132.81	131.00	131.25	120.00	121.00	126.25	134.25	133.00	
Meat and bone meal, Kansas City	"	207.29	198.50	191.25	205.60	205.00	194.40	195.75	205.10	
Fishmeal, 67% protein, East Coast	"	358.39	NQ	356.25	351.90	329.50	325.00	316.25	324.50	
Corn gluten feed, Illinois pts.	"	100.81	114.20	103.75	114.25	101.70	95.90	94.25	92.00	
Corn gluten meal, 60% protein, Illinois pts.	"	256.57	247.00	239.40	247.50	236.70	226.90	230.00	236.20	
Brewers' dried grains, Milwaukee	"	97.05	115.00	115.00	82.50	80.50	82.25	75.60	63.50	
Distillers' dried grains, Lawrenceburg, Indiana	"	124.35	134.80	136.25	138.00	134.00	128.00	123.00	90.70	
Feather meal, Arkansas pts.	"	210.01	207.50	167.50	204.50	206.00	189.40	170.75	173.20	
Wheat bran, Kansas City	"	80.64	79.10	69.40	70.40	56.30	51.90	52.75	55.70	
Wheat middlings, Kansas City	"	80.64	79.10	69.40	70.40	56.30	51.90	52.75	55.70	
Rice bran, f.o.b. mills, Arkansas	"	70.83	75.20	57.75	62.60	66.40	54.65	59.10	60.10	
Hominy feed, Illinois pts.	"	89.00	85.50	83.00	82.50	82.10	68.10	73.90	77.00	
Alfalfa meal, dehydrated, Kansas City	"	127.00	112.00	112.00	111.25	112.20	115.00	109.00	105.40	
Cane molasses, New Orleans	"	55.05	67.50	67.50	67.50	67.50	67.50	67.50	67.50	
Molasses beet pulp, Los Angeles	"	118.36	125.00	125.00	120.00	112.90	112.00	112.50	NA	
Animal fat, Kansas City	c/lb.	10.94	11.60	11.20	10.60	10.50	10.00	10.00	10.70	
Urea, 42% nitrogen, Fort Worth	\$/ton	197.89	185.00	185.00	187.00	185.00	185.00	185.00	185.00	
Corn, no. 2 white, Kansas City	\$/bu.	2.99	2.95	2.95	2.95	2.96	3.10	3.12	3.13	
Prices paid, U.S. basis 3/ 4/:										
Soybean meal, 44%	\$/cwt	13.53	12.50	---	---	12.70	---	---	12.70	
Cottonseed meal, 41%	"	14.85	14.60	---	---	14.00	---	---	13.80	
Wheat bran	"	10.83	10.70	---	---	10.80	---	---	10.60	
Wheat middlings	"	9.51	9.35	---	---	9.39	---	---	9.01	
Broiler grower feed	\$/ton	221.25	211.00	---	---	209.00	---	---	202.00	
Laying feed	"	200.00	198.00	---	---	195.00	---	---	189.00	
Turkey grower feed	"	240.25	235.00	---	---	237.00	---	---	227.00	
Chick starter	"	228.50	217.00	---	---	222.00	---	---	218.00	
Dairy feed, 16%	"	182.50	179.00	---	---	178.00	---	---	172.00	
Beef cattle concentrate, 32-36% protein 5/	"	256.25	249.00	---	---	249.00	---	---	245.00	
Hog concentrate, 38-42% protein 5/	"	309.25	294.00	---	---	295.00	---	---	297.00	
Stock salt 5/	50 lb	3.46	3.57	---	---	3.58	---	---	3.58	
Corn products, wholesale 6/:										
Corn meal, yellow, New York	\$/cwt	13.40	13.51	13.62	13.62	13.69	13.43	12.82	13.09	
Grits (brewers'), Chicago	"	10.21	9.97	10.05	10.09	10.18	9.92	9.79	9.58	
Syrup, Midwest/West	c/lb.	11.39	10.44	10.44	11.36	12.73	12.73	12.73	12.73	
Sugar (dextrose), Midwest	"	24.54	24.50	24.50	24.50	24.50	24.50	24.50	24.50	
High-fructose (dried weight in tank cars), Midwest	"	13.90	12.78	12.78	13.16	14.70	14.70	15.34	17.25	
Corn starch, f.o.b. Midwest	\$/cwt	10.66	10.73	10.86	10.86	11.01	11.41	11.41	11.41	

--- = Not applicable.

NA = Not available.

NQ = No quotes.

1/ Preliminary. 2/ Grain and Feed Market News, Agricultural Marketing Service, USDA, except urea which is from Feedstuffs, Miller Publishing Co., Minneapolis, Minnesota. 3/ Agricultural Prices, Agricultural Statistics Board, USDA. 4/ Prices paid data is available on a quarterly basis only. 5/ Prices previously published in cwt.

6/ Milling and Baking News, Kansas City, Missouri, except starch which is from industry sources.

Appendix table 15--Corn, sorghum, barley, and oats exports, 1988/89 to date 1/

Year and month	Corn		Sorghum	Year and month	Barley		Oats	
	Grain only	Total			Grain only	Total	Grain only	
	Bushels				Bushels			
1988/89:				1988/89:				
Sept.	150,843,842	151,736,284	26,656,522	June	12,108,210	12,402,962	102,245	
Oct.	170,295,536	171,523,785	19,499,969	July	11,513,586	11,757,762	38,739	
Nov.	149,632,839	151,030,488	18,319,440	Aug.	2,214,904	2,500,232	24,394	
1st Qtr.	470,772,217	474,290,557	64,475,931	1st Qtr.	25,836,700	26,660,956	165,378	
Dec.	172,492,326	173,546,904	27,975,619	Sept.	8,758,198	8,833,519	21,017	
Jan.	175,221,513	176,487,573	32,501,841	Oct.	1,432,089	2,161,176	30,378	
Feb.	154,909,994	158,177,973	33,002,703	Nov.	2,452,268	3,055,490	73,371	
2nd Qtr.	502,623,833	508,212,450	93,480,163	2nd Qtr.	12,642,555	14,050,185	124,766	
Mar.	202,840,169	206,563,860	30,648,140	Dec.	15,121,435	15,440,102	29,605	
Apr.	177,475,933	180,898,856	28,248,011	Jan.	84,517	417,785	115,957	
May	211,303,127	212,764,901	21,239,060	Feb.	81,490	439,958	65,245	
3rd Qtr.	591,619,229	600,227,617	80,135,211	3rd Qtr.	15,287,442	16,297,845	210,807	
June	223,487,607	225,359,132	24,105,107	Mar.	1,964,297	2,424,381	22,487	
July	133,145,813	135,157,047	25,119,434	Apr.	13,817,421	14,373,832	70,294	
Aug.	106,804,440	109,287,340	22,869,115	May	9,781,368	10,571,462	69,774	
4th Qtr.	463,437,860	469,803,519	72,093,656	4th Qtr.	25,563,086	27,369,675	77,373	
Total	2,028,453,139	2,052,534,142	310,184,961	Total	79,329,783	84,378,661	578,324	
							1,285,491	
1989/90:				1989/90:				
Sept.	113,776,974	116,262,446	34,171,231	June	7,364,654	8,121,974	73,555	
Oct.	175,531,175	178,434,620	35,729,330	July	9,666,205	10,699,552	99,550	
Nov.	293,764,931	296,074,486	22,408,755	Aug.	9,513,210	9,987,091	56,400	
1st Qtr.	583,073,080	590,771,552	90,309,316	1st Qtr.	26,544,069	28,799,617	229,505	
Dec.	258,806,792	260,538,272	19,612,697	Sept.	8,060,139	9,274,483	137,368	
Jan.	239,115,226	241,832,437	33,378,612	Oct.	4,634,063	5,354,195	86,668	
Feb.	183,848,421	186,811,227	28,182,429	Nov.	4,520,961	5,397,789	103,742	
2nd Qtr.	681,770,439	689,181,936	81,173,738	2nd Qtr.	17,215,163	20,026,467	270,958	
Mar.	193,266,890	196,494,682	31,489,112	Dec.	9,910,349	10,568,654	55,999	
Apr.	193,839,027	198,739,081	27,544,536	Jan.	6,037,587	6,879,444	83,079	
May	214,184,922	216,778,666	22,232,389	Feb.	6,895,254	7,088,782	93,083	
3rd Qtr.	601,290,839	612,012,429	81,266,037	3rd Qtr.	22,843,190	24,536,880	152,165	
June	201,188,588	204,096,201	12,501,897	Mar.	566,367	800,696	102,001	
July	147,757,179	150,908,438	14,517,610	Apr.	8,399,072	9,812,500	72,009	
Aug.	153,686,452	157,627,664	23,760,673	May	8,907,697	9,086,501	110,947	
4th Qtr.	502,632,219	512,632,303	50,780,180	4th Qtr.	17,873,136	19,699,697	32,389	
Total	2,368,766,577	2,404,598,220	303,529,271	Total	84,475,558	93,062,661	63,663	
							1,522,213	
1990/91:				1990/91:				
Sept.	106,371,404	109,121,558	18,212,586	June	11,117,511	11,513,895	97,249	
Oct.	108,167,144	111,184,494	17,699,762	July	9,710,720	10,087,119	40,805	
Nov.	168,266,952	171,556,193	20,675,429	Aug.	10,034,339	10,539,636	44,949	
1st Qtr.	382,805,500	391,862,245	56,587,777	1st Qtr.	30,862,570	32,140,650	183,003	
Dec.	142,014,881	144,250,941	17,623,359	Sept.	1,988,455	3,087,526	126,235	
Jan.	145,445,877	149,685,134	16,917,475	Oct.	14,220,343	14,570,556	60,209	
Feb.	183,208,638	188,165,991	26,675,128	Nov.	9,147,225	9,586,611	44,661	
2nd Qtr.	470,669,396	482,102,066	61,215,962	2nd Qtr.	25,356,023	27,144,593	231,105	
Mar.	188,981,321	192,970,486	29,896,631	Dec.	12,191,762	13,433,856	16,252	
Apr.	144,273,052	146,807,504	30,388,649	Jan.	5,306,015	5,997,143	72,260	
May	120,483,217	125,189,783	16,532,755	Feb.	1,139,882	1,508,113	56,190	
3rd Qtr.	453,737,590	464,967,773	76,818,035	3rd Qtr.	18,637,659	20,939,112	44,661	
June	105,294,851	108,118,121	4,063,117	Mar.	2,150,913	2,944,676	21,875	
July				Apr.	438,667	1,083,195	128,694	
Aug.				May	2,435,385	3,739,709	114,089	
4th Qtr.				4th Qtr.	5,024,965	7,767,580	282,875	
Total				Total	79,881,217	87,991,935	610,687	
1991/92:				1991/92:				
Sept.				June	695,827	1,328,726	58,438	
							121,591	

1/ Total corn exports include grain only (white, yellow, seed, relief), dry process (cornmeal for relief, as grain, grits), and wet process (corn starch, sugar dextrose, glucose, high fructose). Sorghum includes seed and unmilled. Barley includes grain only (grain for malting purposes, other) and barley malt. Oats include grain and oatmeal (bulk and packaged).

Source: Bureau of the Census, U.S. Department of Commerce.

Appendix table 16--Corn, sorghum, barley, and oats imports, 1988/89 to date 1/

Year and month	Corn		Sorghum	Year and month	Barley		Oats	
	Grain only	Total			Grain only	Total	Grain only	Total
Bushels								
1988/89:				1988/89:				
Sept.	148,437	177,913	0	June	1,596,106	1,700,185	5,680,015	5,772,502
Oct.	296,701	308,058	3,673	July	930,207	1,029,127	2,276,583	2,365,501
Nov.	180,789	233,514	0	Aug.	317,223	417,363	4,298,356	4,485,006
1st Qtr.	625,927	719,485	3,673	1st Qtr.	2,843,536	3,146,675	12,254,954	12,623,009
Dec.	106,151	173,241	0	Sept.	240,729	365,319	2,059,442	2,367,645
Jan.	307,023	723,699	0	Oct.	402,245	555,196	3,995,388	4,239,340
Feb.	178,260	591,385	15,130	Nov.	1,523,621	1,651,752	5,834,991	6,184,617
2nd Qtr.	591,434	1,488,325	15,130	2nd Qtr.	2,166,595	2,572,267	11,889,821	12,791,602
Mar.	420,381	742,935	0	Dec.	490,420	578,085	4,696,591	5,153,441
Apr.	633,060	845,387	5	Jan.	729,443	838,489	6,100,483	6,906,243
May	162,021	356,329	0	Feb.	1,627,551	1,720,819	9,313,487	10,172,629
3rd Qtr.	1,215,462	1,944,651	5	3rd Qtr.	2,847,414	3,137,393	20,110,561	22,232,313
June	33,363	212,637	14	Mar.	762,924	851,359	7,169,256	8,042,377
July	223,459	382,968	0	Apr.	753,742	857,654	4,750,564	5,431,135
Aug.	93,469	348,056	0	May	1,136,714	1,239,385	6,723,912	7,307,316
4th Qtr.	350,291	943,661	14	4th Qtr.	2,653,380	2,948,398	18,643,732	20,780,828
Total	2,783,114	5,096,122	18,822	Total	10,510,925	11,804,733	62,899,068	68,427,752
1989/90:				1989/90:				
Sept.	38,078	278,865	0	June	1,649,125	1,745,195	3,146,832	3,789,238
Oct.	307,119	553,242	0	July	571,185	661,468	6,440,929	6,730,677
Nov.	297,019	545,010	0	Aug.	1,356,499	1,456,086	7,372,277	7,823,880
1st Qtr.	642,216	1,377,117	0	1st Qtr.	3,576,809	3,862,749	16,960,038	18,343,795
Dec.	98,067	284,277	0	Sept.	263,515	360,996	5,871,691	6,236,194
Jan.	247,828	427,823	0	Oct.	204,334	285,661	4,460,867	4,779,170
Feb.	92,762	248,372	0	Nov.	1,517,596	1,674,049	7,146,334	7,452,067
2nd Qtr.	438,657	960,472	0	2nd Qtr.	1,985,445	2,318,706	17,478,892	18,467,431
Mar.	182,222	320,108	74,979	Dec.	1,078,994	1,235,670	6,581,569	6,720,624
Apr.	162,070	340,157	826	Jan.	823,485	951,218	4,913,651	5,106,850
May	275,032	540,454	42,236	Feb.	1,396,491	1,556,043	4,198,054	4,343,569
3rd Qtr.	619,324	1,200,719	118,041	3rd Qtr.	3,298,970	3,742,931	15,693,274	16,171,043
June	33,491	302,083	23,864	Mar.	1,412,309	1,513,346	3,990,713	4,076,976
July	135,597	409,747	75,398	Apr.	1,333,963	1,417,784	8,366,698	8,475,874
Aug.	32,720	259,866	8,410	May	1,468,205	1,585,804	3,318,193	3,416,974
4th Qtr.	201,808	971,696	107,672	4th Qtr.	4,214,477	4,516,934	15,675,604	15,969,824
Total	1,902,005	4,510,004	225,713	Total	13,075,701	14,441,320	65,807,808	68,952,093
1990/91:				1990/91:				
Sept.	29,118	260,345	5,551	June	603,614	691,947	6,675,422	6,766,369
Oct.	172,220	496,429	0	July	309,116	547,246	5,841,249	5,908,451
Nov.	683,773	920,527	60	Aug.	117,460	357,140	4,998,143	5,090,611
1st Qtr.	885,111	1,677,301	5,611	1st Qtr.	1,030,190	1,596,333	17,514,814	17,765,431
Dec.	90,489	263,269	0	Sept.	117,510	200,053	2,240,097	2,358,047
Jan.	100,811	305,895	0	Oct.	293,888	485,342	4,464,410	4,636,239
Feb.	83,751	264,812	0	Nov.	839,438	1,014,543	4,970,603	5,078,808
2nd Qtr.	275,051	833,976	0	2nd Qtr.	1,250,836	1,700,438	11,675,110	12,073,094
Mar.	80,937	251,187	60,462	Dec.	1,288,335	1,569,231	6,027,830	6,118,040
Apr.	214,595	370,354	167	Jan.	1,194,977	1,306,582	2,543,585	2,642,746
May	975,096	1,295,004	24	Feb.	1,723,635	1,836,340	9,675,744	9,822,449
3rd Qtr.	1,270,628	1,916,545	60,653	3rd Qtr.	4,206,947	4,712,253	18,247,059	18,583,235
June	155,046	327,612	0	Mar.	2,248,034	2,423,555	4,618,596	4,763,254
July				Apr.	3,369,631	3,401,987	3,767,262	3,887,601
Aug.				May	2,747,783	3,163,998	15,171,967	15,438,588
4th Qtr.				4th Qtr.	8,365,448	8,989,540	23,557,825	24,089,443
Total				Total	14,853,421	16,998,564	70,994,808	72,511,203
1991/92:				1991/92:				
Sept.				June	4,575,522	4,778,394	5,759,634	5,844,622

1/ Total includes in addition to grain, processed products of corn, barley and oats.

Source: Bureau of the Census, U.S. Department of Commerce.

Appendix table 17--Shipments of grain on the Illinois Waterway and the Mississ.

Crop year	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.
1981/82	3.4	3.4	4.6	3.9	1.2	0.9
1982/83	4.1	3.2	4.2	3.2	2.7	0.9
1983/84	5.3	4.9	5.7	4.4	1.0	0.9
1984/85	3.1	4.6	5.5	3.1	2.0	0.9
1985/86	2.4	2.6	4.3	3.3	1.8	0.9
1986/87	3.2	3.1	5.2	2.4	1.2	0.9
1987/88	3.3	3.8	3.9	2.9	1.9	0.9
1988/89	3.3	3.3	3.9	3.5	1.7	0.9
1989/90	3.0	3.9	4.7	2.5	2.2	0.9
1990/91	3.6	3.4	4.8	2.1	1.6	0.9

Source: Mississippi River Barge Traffic, U.S. Army Corps of Engineers, Rock Island District.

Appendix table 18--Barge rates for grain shipments to New Orleans, Louisiana

Crop year	Origin	Sept.	Oct.	Nov.	Dec.	Jan.
1984/85	Peoria, IL St Louis, MO	7.77 5.94	8.07 5.92	6.71 5.15	5.79 3.98	7.34 4.36
1985/86	Peoria, IL St Louis, MO	5.26 4.32	7.93 6.42	6.48 4.80	9.08 5.35	7.22 4.39
1986/87	Peoria, IL St Louis, MO	8.37 6.52	10.54 7.52	6.64 5.06	5.16 3.62	4.95 3.28
1987/88	Peoria, IL St Louis, MO	8.66 6.58	9.04 6.97	7.38 5.73	5.68 4.29	7.32 4.39
1988/89	Peoria, IL St Louis, MO	9.80 7.91	10.32 8.35	7.88 5.94	8.81 6.11	7.32 5.19
1989/90	Peoria, IL St Louis, MO	5.89 4.64	10.49 7.90	10.87 6.84	12.15 7.05	9.13 5.23
1990/91	Peoria, IL St Louis, MO	6.33 4.76	7.38 5.57	7.16 5.62	5.97 4.21	7.46 4.89

1/ Assumes all traffic on the Illinois River originates at Peoria.

Source: Based on rates reported by Transportation Situation, Illinois Department of Transportation.

Mississippi River (Locks 11-22), 1981/82-1990/91

Feb.	Mar.	Apr.	May	June	July	Aug.	Average
Million tons							
0.8	2.1	4.1	3.8	4.4	3.9	5.0	3.4
2.3	3.8	3.3	3.9	4.2	4.2	4.8	3.6
3.6	4.5	5.3	4.4	3.7	3.4	3.3	4.1
0.9	3.1	4.1	3.1	3.2	3.4	3.0	3.3
1.7	2.9	3.4	3.6	3.2	2.5	3.3	2.9
1.7	3.6	3.8	4.0	3.8	2.8	3.5	3.2
2.0	3.0	4.2	4.3	3.6	2.7	3.3	3.2
1.5	2.6	3.5	4.3	4.1	3.9	3.4	3.3
2.2	3.5	4.5	5.2	4.5	5.0	4.0	3.8
2.0	3.1	4.0	3.7	3.6	4.4		3.3

s, Rock Island District.

siana 1/

Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Average
Dollars/ton								
.34	6.87	5.73	5.08	4.33	4.76	4.83	4.63	5.99
.36	4.20	3.88	3.79	3.29	3.39	3.34	3.64	4.24
.22	5.64	4.28	4.13	3.90	3.70	3.70	6.21	5.63
.39	3.87	3.18	3.14	2.97	2.99	2.96	4.62	4.08
.95	5.23	6.96	5.88	5.44	6.16	6.15	6.46	6.50
.28	3.52	5.27	4.54	3.77	4.30	4.37	4.99	4.73
.32	6.89	8.16	7.25	6.19	9.86	9.79	7.61	7.82
.39	4.59	6.13	5.47	4.65	7.56	6.81	6.46	5.80
.32	7.26	7.08	5.85	5.34	6.13	4.92	5.13	7.15
.19	5.31	5.40	4.18	3.72	4.44	3.68	3.92	5.35
.13	7.32	6.43	7.70	6.43	5.47	4.56	5.40	7.65
.23	5.07	4.92	5.64	4.82	3.99	3.22	3.96	5.27
.46	6.45	5.09	5.28	4.85	5.62	6.65		6.20
.89	4.20	3.91	3.88	3.44	4.11	4.90		4.50

Dept. of Agriculture.

Appendix table 19--Weekly average of rail car loadings of grain and so

Year	Sept.	Oct.	Nov.	Dec.	Jan.
1979/80	28,576	32,118	32,558	30,500	30,504
1980/81	32,127	24,114	31,450	28,106	34,396
1981/82	25,607	25,609	27,419	22,384	22,967
1982/83	20,321	29,523	25,350	21,888	24,700
1983/84	29,735	31,414	29,515	25,927	31,068
1984/85	29,162	24,482	28,587	25,441	25,310
1985/86	18,889	26,227	28,214	23,482	25,424
1986/87	27,329	33,605	29,877	24,827	23,086
1987/88	32,977	32,820	29,947	29,225	32,223
1988/89	29,014	30,628	27,140	27,120	30,324
1989/90	24,437	28,950	31,701	29,411	32,250
1990/91	25,984	27,135	27,243	24,359	26,525

Source: Association of American Railroads.

Appendix table 20--Rail freight rate index for grain, crop years 1979,

Year	Sept.	Oct.	Nov.	Dec.	Jan.
1979/80	64.2	69.5	69.6	70.2	70.2
1980/81	78.3	78.8	78.8	79.2	83.1
1981/82	88.5	89.4	89.4	89.4	93.6
1982/83	93.0	93.0	93.0	93.0	93.9
1983/84	93.9	94.2	94.2	94.2	98.0
1984/85	98.4	100.0	100.0	100.0	100.0
1985/86	98.0	98.0	98.0	98.0	98.9
1986/87	99.2	98.5	98.5	97.8	98.3
1987/88	98.9	99.2	99.1	98.5	101.2
1988/89	109.3	108.5	108.5	108.2	109.2
1989/90	108.4	108.6	108.7	108.7	109.1
1990/91	110.6	111.3	111.3	111.3	111.0

Source: Bureau of Labor Statistics, U.S. Department of Labor.

and soybeans, 1979/80-1990/91

	Feb.	Mar.	Apr.	May	June	July	Aug.	Average
Carloads								
	31,025 31,108	30,170 27,657	26,546 23,490	23,606 21,291	28,333 28,014	32,584 22,162	32,921 26,152	29,953 27,506
	27,220 26,318	26,813 26,807	25,798 21,243	23,755 20,849	22,540 21,393	27,020 27,942	25,123 27,461	25,188 24,483
	29,105 23,688	27,666 23,340	26,784 20,164	23,616 17,715	24,335 24,724	26,632 22,662	29,848 20,218	27,970 23,791
	22,558 26,663	20,648 27,134	17,743 25,046	17,673 26,189	24,907 32,154	24,426 32,257	24,342 30,825	22,878 28,249
	34,224 30,583	34,241 31,436	32,963 30,181	30,861 25,943	33,316 27,253	29,678 25,095	27,010 25,990	31,624 28,392
	32,605 28,570	29,648 28,085	27,938 24,927	25,696 20,840	28,122 24,527	25,717 25,552	26,798 25,611	28,606

1979/80-1990/91

	Feb.	Mar.	Apr.	May	June	July	Aug.	Average
December 1984=100								
	71.4 84.1	70.5 85.0	72.7 84.8	72.8 84.8	73.3 85.7	76.6 88.0	76.9 88.5	71.5 83.3
	93.6 93.9	92.1 93.6						
	98.0 100.0	98.0 99.3	98.0 99.3	98.0 98.7	98.0 97.3	98.4 96.4	98.4 96.3	96.8 98.8
	99.0 98.3	99.0 98.8	99.1 98.6	99.2 98.5	99.2 98.6	99.2 98.6	99.2 98.5	98.7 98.5
	101.2 109.2	101.4 108.8	102.7 108.8	104.1 108.8	104.3 108.0	106.4 108.4	109.3 108.4	102.2 108.7
	109.1 111.0	109.1 112.5	109.7 112.0	109.7 111.1	109.2 111.2	109.7 112.9	110.5	109.1 111.5

Appendix table 21--Hay (all): Acreage, supply, and disappearance, 1984/85-1991/92

Item	Unit	1984/85	1985/86	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92
Acreage harvested	Mil. acres	61.4	60.4	62.4	60.1	65.1	63.3	61.6	63.1
Yield per acre	Tons	2.45	2.46	2.49	2.45	1.94	2.30	2.39	2.48
Carryover (May 1)	Mil. tons	20.1	26.9	26.7	32.3	27.1	17.5	27.1	27.1
Production	"	150.6	148.6	155.5	147.5	126.0	145.5	147.0	156.8
Supply	"	170.7	175.5	182.2	179.8	153.1	163.0	174.1	183.9
Disappearance	"	143.8	148.8	149.9	152.7	135.6	135.9	147.0	NA
Roughage-consuming animal units (RCAU's)	Mil. units	83.2	80.5	78.3	76.3	75.5	75.5	75.8	78.5
Supply per RCAU	Tons	2.05	2.18	2.33	2.36	2.03	2.16	2.30	2.34
Disappearance per RCAU	"	1.73	1.85	1.91	2.00	1.80	1.80	1.94	NA

NA = Not available.

Appendix table 22--Hay: Average prices received by farmers, United States by months, 1983/84-1991/92 1/

Year	May	June	July 2/	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	Average 3/
\$/ton													
Alfalfa:													
1983/84	83.80	78.30	77.40	77.40	79.10	82.40	80.10	81.70	82.00	85.10	84.40	84.30	81.33
1984/85	87.10	80.10	75.60	72.80	73.90	76.70	74.30	77.50	76.20	76.40	75.80	76.70	76.93
1985/86	85.50	74.90	72.50	68.10	70.70	70.50	67.70	69.10	70.20	71.30	72.00	69.80	71.86
1986/87	69.50	64.10	61.40	60.10	58.80	59.90	57.90	60.70	58.80	61.10	62.80	67.90	61.92
1987/88	76.30	66.90	65.10	66.30	67.60	67.70	63.70	67.40	66.50	69.60	72.50	76.90	69.31
1988/89	84.50	81.90	87.90	86.10	87.30	90.30	92.20	94.40	96.70	99.40	105.00	107.00	93.83
1989/90	105.00	96.50	89.90	87.50	91.20	89.80	91.30	92.50	93.30	95.20	96.70	103.00	93.80
1990/91	108.00	95.30	91.70	89.30	91.60	92.70	86.60	85.50	88.10	87.30	90.40	93.40	89.20
1991/92	89.00	80.10	75.20										
Other hay:													
1983/84	58.90	56.10	54.30	52.90	57.80	59.50	62.10	64.30	63.30	63.80	64.90	66.50	60.37
1984/85	64.90	63.40	61.80	60.90	62.40	62.00	62.60	64.80	64.80	64.70	61.70	58.40	62.70
1985/86	58.70	54.00	57.00	58.40	58.60	58.20	55.30	56.00	56.10	56.00	54.80	54.90	54.50
1986/87	54.00	50.90	50.00	51.00	52.70	50.00	49.70	49.40	48.10	50.90	48.30	48.20	50.27
1987/88	51.90	50.80	49.60	51.00	51.80	51.10	52.30	51.10	52.20	51.50	51.70	51.90	52.09
1988/89	59.30	62.00	65.10	68.10	68.90	69.00	70.00	69.50	70.00	72.10	73.60	76.70	70.03
1989/90	78.80	69.00	63.60	63.10	66.10	62.80	63.00	63.00	64.00	62.50	63.70	65.10	65.50
1990/91	67.80	62.90	64.40	65.30	66.50	65.30	65.40	62.90	63.70	60.80	60.80	61.50	65.10
1991/92	61.10	57.50	55.80										
All hay:													
1983/84	78.10	72.70	71.20	71.20	74.70	76.80	75.10	76.70	76.60	78.70	79.40	79.80	75.80
1984/85	82.50	76.10	72.40	70.40	70.70	73.10	71.50	73.40	73.00	73.10	72.20	72.50	72.70
1985/86	80.80	70.20	67.90	65.20	67.10	67.50	64.30	65.40	65.80	66.70	67.10	66.20	67.60
1986/87	66.70	61.00	58.80	58.20	57.60	57.90	56.00	57.70	56.10	58.50	59.20	64.10	59.80
1987/88	71.70	62.90	61.20	62.70	64.10	64.20	61.10	63.20	62.80	64.60	67.20	71.40	65.00
1988/89	79.70	77.00	81.60	81.40	82.90	85.10	86.40	87.60	89.50	91.80	96.90	101.00	85.20
1989/90	100.00	90.20	83.40	81.60	85.70	83.20	83.20	83.50	84.90	85.70	87.50	95.00	85.40
1990/91	99.90	86.70	83.60	83.40	86.20	85.60	81.40	79.50	82.00	80.40	84.50	88.60	83.20
1991/92	84.20	71.60	70.60										

1/ Revised prices reported for mid-month. 2/ July 1991 data is preliminary. 3/ U.S. season average prices weighted by monthly marketings.

Source: Agricultural Prices, Agricultural Statistics Board, USDA.



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